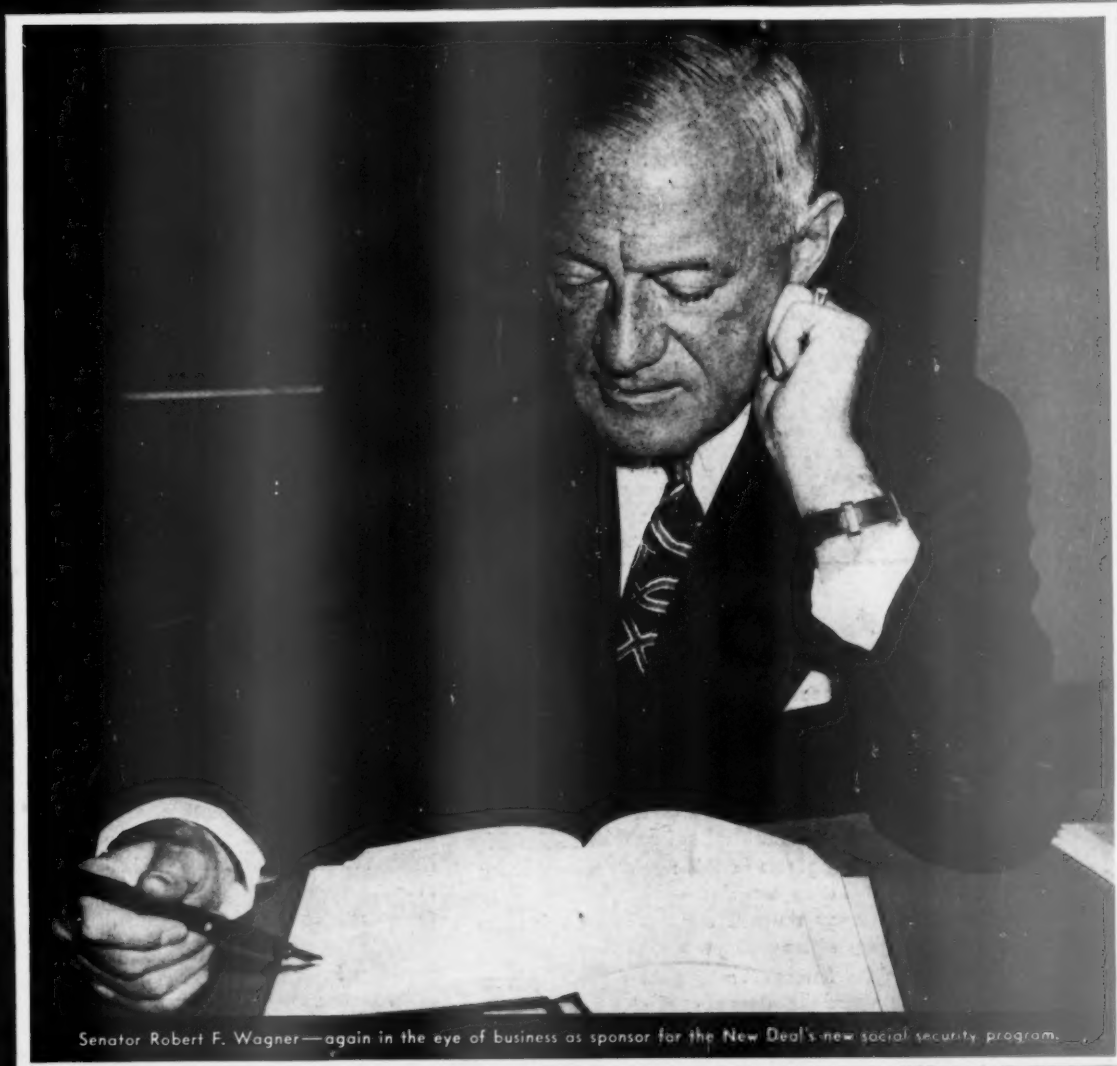


← WEEK
AGO

← YEAR
AGO

← START
OF WAR
1939

BUSINESS WEEK



Senator Robert F. Wagner—again in the eye of business as sponsor for the New Deal's new social security program.



SINESS
EEK
DEX

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FLAMES THAT CUT TIME!

TODAY, ships are needed as never before. And today, ships are being built as never before . . . and built faster, stronger, and with less steel . . . thanks to welding!

But before welding can take place, steel plates have to have their edges beveled and squared-up so that, when butted together, they look like this:  or like this: 


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Now, oxy-acetylene flames . . . *cutting in different planes simultaneously* . . . prepare the edges of steel plates of any commercial thickness *at one pass* . . . in a fraction of the time required by mechanical methods!

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In conjunction with "Unionmelt" Welding . . . an amazing

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These two methods are also helping to break production records in other fields. Great pressure vessels . . . locomotive boilers . . . huge pipes . . . heavy chemical tanks . . . combat tanks . . . artillery mounts . . . and other vital equipment are being turned out faster because of them.

Linde research, intensified today, is constantly solving new problems in flame-cutting, flame-fabricating, and flame-conditioning of metals for war production.

The important developments in flame-cutting—and other processes and methods used in the production, fabrication and treating of metals—which have been made by The Linde Air Products Company were facilitated by collaboration with Union Carbide and Carbon Research Laboratories, Inc., and by the metallurgical experience of Electro Metallurgical Company and Haynes Stellite Company—all Units of Union Carbide and Carbon Corporation.

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Every hour, day and night, five tanks roll off the assembly lines . . . soon, twelve tanks an hour will speed to war. Your dollars turn the wheels of war production.

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NEARLY \$13-billion subscribed in the December Victory Fund Drive . . . a demonstration of patriotic devotion by more than fifty million Americans who are sending their dollars into battle . . . a tribute to the unflagging efforts of Victory Fund Committees and War Bond sales staffs all over America . . . ringing proof of this Nation's all-out determination to win.

But dollars go to war quickly . . . over \$1.5-billion every week. So keep on buying War Bonds and Stamps out of current income . . . join up in the Payroll Savings Plan. And be ready to invest in the new Victory Loan next Spring. Fight with your *dollars* as our sons and brothers are fighting with their *lives*.



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The Women's Army Auxiliary Corps is trained for specialized assignments... mechanics, radio technicians, parachute riggers, clerks, typists, messengers, drivers and at many jobs formerly done by men.

But also helping to support our men is a host of *specialists in industry*... men and women producing weapons and materials.

Hartford Steam Boiler's war job is safeguarding power-plant equipment

for its policyholders... helping to keep boilers, turbines, generators working the clock around... by detecting flaws and weaknesses before they can cause accidents.

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Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

**THE HARTFORD STEAM BOILER INSPECTION
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BUSINESS WEEK

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Business Week • January 16, 1943

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Bouncer Byrnes

Washington is beginning to believe that Roosevelt has hired himself a bouncer. To old Washington hands, the strange thing about Leon Henderson's ouster was that Roosevelt ousted him. F. D. R. has always been a man who hires his friends and rarely fires them; if they don't pan out, he lets them fade away. Even in the face of the terrific pressure against the Price Administrator, Roosevelt's impulse was to keep him on, divert some of his authority and all of the heat on him to Economic Stabilizer James F. Byrnes.

It was Byrnes himself who unsold Roosevelt on that plan.

It may yet turn out that Byrnes, appointed to influence Congress, did his most significant job in influencing the President to the realization that he'll have to show at least a little ruthlessness toward his war administrators.

Two More in Line

Henderson felt the first effect of the Byrnes influence. Next tests of it will involve Food Administrator Claude R. Wickard and Manpower Commissioner Paul V. McNutt.

In naming Wickard to the food job and in increasing McNutt's manpower authority, Roosevelt put both men on trial. They've got to deliver or else. And in both cases the question is already being raised as to how long a trial they're entitled to.

McNutt knows he's on trial. His Judgment Day will come early this spring, when acute farm labor shortages threaten to upset the food program. It looks now as though he won't even have made a beginning on the problem before it overwhelms him. But he'll have an alibi ready.

There's Power There

McNutt's alibi for lack of progress on manpower is that he doesn't have the power to be effective. He pigeonholes every problem by claiming that only a National Service Act can solve it.

Besides serving as an alibi, this line is intended to allay the fears of those who might be pinched by a strong War Manpower Administration. The lesson of what happened to Henderson when he talked tough has not been lost on Presidential-minded Paul.

Don't take McNutt's protestations too seriously. He's got power, plenty of it, though it now seems unlikely that he will use it to carry out any nationally

integrated plan. Instead, while he maintains his aloof claim of impotence, his regional operatives will be pushing their authority down employers' throats through piecemeal actions in the field. There will be plenty of squawking on the local level, but McNutt figures on keeping himself serene and undirtied, well above the battle.

• **Upper and Nether**—Question is how long McNutt can maintain the tricky balance between stirring up opposition by tough action and stirring it up by letting manpower crises develop.

Squeeze on Wickard

Claude Wickard's tenure is no more secure than McNutt's. Even his friends figure he will be caught between conflicting pressures:

(1) No matter what he does for the farmer on prices, manpower, machinery, etc., he cannot satisfy the three major farm groups, which will continue to press for more and more.

(2) No matter what he does, there will be a consumer reaction against the food program. The food outlook is darker than Washington will admit. Even if Wickard works miracles, centralized food control came too late. And he won't work miracles. Already his infant production organization is engaged in internal warfare, and his distribution organization is being weighted down with Agriculture Department careerists and conflicting lines of jurisdiction.

• **Who Else?**—Wickard's hold on his job is strengthened by the difficulty of finding a successor. The Secretary of Agriculture has to be a dirt farmer, and it's tough to find one who is acceptable to the President and still on good terms with the Big Three farm organizations. One possibility might be to leave Wickard in Agriculture, name a new food administrator.

Small Business Gets Help

General Brehon B. Somervell's Services of Supply is, to the great satisfaction of the champions of small business, spreading a considerably greater volume of work among small plants. It's just possible that this will save the neck of Lou Holland, director of WPB's Smaller War Plants Corp.

Ire of the congressional small business committees is not directed so much against Holland's outfit as against the "controlling influence" in WPB and the procurement agencies, which have been slow to respond to pressure from

Capitol Hill. Nelson is trying to avoid a blowup by placating the politicians.

• **Off with Their Heads**—Some reorganizing is going on in SWPC, and three members of the board of directors will be thrown out.

Appeasement Policy

Appeasement of the civilian (BW—Jan. 9 '42, p. 5) is already all but the official policy in WPB.

Faced with congressional and public pressure for a softer war, for more civilian output, production officials are now less concerned with resisting the pressure than with finding face-saving ways of retreating from their former ideas of what "cutting down to a lean but healthy economy" means. They have been forced to recognize that if civilians are to be "happy" during the war, women must have hairpins and beauty parlors, the Philadelphian must be free to drink St. Louis beer if that's the kind of beer he likes.

Nobody yet openly proposes that munitions programs be scaled down to release material for consumers. Officials know, however, that throughout the coming year there will be intervals in which the need for a particular munition item drops temporarily; the warehouses, say, may be full of tanks, and tank production can be slowed. This kind of thing, they now think, can release for civilians a steady if small supply of material.

• **All Out**—Only a few weeks ago, before the temper of the country became evident, the reply of most WPB officials to such a situation would have been: "If the tanks are piling up, use the steel to build more ships to move the tanks in. To hell with the hairpins."

Farm Morale Job

Food, they say, will win the war—and one of the Army's jobs is winning wars. So the Army is taking a hand in stimulating food production.

The War Department's well-established industrial morale unit, headed by Col. A. Robert Ginsburgh, will do a share of the pepping up at the series of farm meetings Agriculture Department is running all over the country during the next couple of weeks. Ginsburgh will furnish speakers, displays of Army rations, and a few enlisted men back from overseas to tell how it feels to run short of food.

• **He Got the Job**—The farm morale program is planned as a one-shot job for

CONCRETE

today and tomorrow



Official U. S. Navy Photograph

TODAY, concrete is helping to win the war by saving time, money, transportation, and critical materials in military construction.

TOMORROW, when peace comes, valuable experience already gained, combined with a broad background of technical progress, will enable portland cement and concrete to render even greater service in the construction field.

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STRENGTH—Concrete's great strength and durability are demonstrated anew in sturdy military access roads, aircraft runways, and countless heavy-duty military structures.

LOW ANNUAL COST—Concrete's sturdy resistance to fires, storms, decay and other hazards minimize repairs and upkeep in home, farm and factory buildings, in street, highway and airport pavements.

OTHER ECONOMIES—Speedy war construction jobs again show the many time-saving advantages of concrete.

Transportation costs are reduced because the bulk of the materials to make concrete are usually found locally.

ADAPTABILITY—No other material combines so many qualities essential to so many types of construction.

Technical assistance on concrete problems is available to engineers, contractors and architects on all types of war construction.

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A national organization to improve and extend the uses of concrete... through scientific research and engineering field work

BUY MORE WAR BONDS

Business Week • January 16, 1943

WASHINGTON BULLETIN (Continued)

the present meetings, but it's a good guess that if it goes off with no embarrassing shouts of "leave our boys on the farm" it'll be a permanent part of Army morale work.

Political Color Line

When Paul V. McNutt called off hearings before the President's Fair Employment Practices Committee that was slated to investigate charges of discrimination against hiring Negroes on southern railways, he knuckled under to the powerful rail labor organizations.

McNutt not only demonstrated that organized interests could dissuade him from following through on one of the War Manpower Commission's basic principles—open the job market to all, regardless of color, creed, or nationality—but also tipped his hand on his congressional strategy. Scheduled to go before Congress soon for money with which to run the WMC program, McNutt has begun his campaign to honey up the southern Democrats.

At Arm's Length

The National War Labor Board fervently hopes that it can continue to deal at arm's length with John L. Lewis in the anthracite strike (page 80). Note that the board, in asserting it would use its full powers to end the strike, did not promise a hearing on the issues involved. Such a hearing would involve NWLB in an internal fight between Lewis and his rank-and-file, who walked out of the pits rather than have a 50¢-a-month dues increase deducted from their pay.

• **Kiss of Death?**—Last time Lewis attended a hearing—to get the union shop for captive bituminous mines—his defiance dealt a mortal blow to the National Defense Mediation Board, NWLB's predecessor.

Alcohol Rubber

Alcohol is sure to figure more importantly in the synthetic rubber program, for practical as well as political reasons. Here's why: High octane gasoline will step up its demand for petroleum about the same time the new synthetic rubber demand for hydrocarbons moves into big figures. Although petroleum is the favored raw material in the synthetic rubber program as it stands, alcohol is the chief alternative.

The Baruch committee was aware of this threatening situation but decided—thinking it would be in the interest of speed—to recommend freezing the existing predominantly petroleum-based program. Consequently it avoided reference to the hydrocarbons supply ques-

tion lest it stir up further controversy and provide ammunition for the Gillette committee.

• **On Second Thought**—Not until later did the committee discover that the engineering of the existing program wasn't nearly as far along as it had been led to believe. This explains why, last September, it recommended only an 100,000,000 gal. expansion of alcohol for rubber.

New Tax Theories Winning

Pay-as-you-go income taxes (page 19) are enroute to enactment by Mar. 15, when the initial installment of the 1942 tax is due. Encouraged by President Roosevelt and spurred by their constituents, who are loosing a real demand for the pay-as-you-go tax payment plan, members of Congress are determined to get the necessary legislation through.

Major obstacles are the requirement for more taxes this year and the administrative objections to the pay-as-you-go

program. The Treasury is still thumbs-down on the Ruml plan, but the President's stand eliminates any outright fight against the proposal from that quarter. Treasury officials find it difficult to swallow forgiveness of 1942 taxes, which is a part of the Ruml plan, but Congress will force it down their throats unless the Treasury can offer a better substitute. No congressional leader—or the rank-and-file member—is thinking of imposing two years' taxes at present high rates.

Most congressional leaders see no possibility of any substantial increase in income tax rates to meet the added \$16,000,000,000 that the President called for. Sentiment is definitely growing for a sales levy, coupled with compulsory savings. This development is aiding sponsors of the Ruml plan, since prospects for later increases in income tax rates appear slim.

• **Bill Will Take Time**—It will probably be a month or six weeks before a

Byrnes Tries to Split Farm Bloc

The new price ceiling on corn at parity less benefit payments—engineered by Stabilizer James F. Byrnes—is the first direct control of a major farm commodity and represents the strongest rearguard action the cagey economic general has fought against the swelling forces of inflation. Temporarily Byrnes may succeed in splitting the farm groups, thereby minimizing his opponents' potency. For, while all farmers violently oppose the principle that parity should include benefit payments (price ceilings can be imposed when prices plus benefit payments reach parity), it is equally true that livestock, dairy, and poultry men will profit from corn prices that are stable.

Farm organizations see through Byrnes's strategy of dividing their house against itself, but it will take them time to get together on a program to take the ceiling price off of corn until it reaches parity. The logroll they are working on is to keep the livestock boys in camp by promising them a fight for higher meat prices.

Twice before Byrnes has engaged the enemy. Then he saved his main price program by conceding slight defeats. He gave about 10% on wheat, a few cents on milk. But while that helped, it wasn't the big stall that the price ceilings on corn may be.

The importance of time to Byrnes

(and to Prentiss Brown, incoming OPA chief) is obvious. If the farm bloc ever succeeds in getting the Administration to throw benefit payments out of parity calculations, the cost of living would be hiked 6%. Should the farmers also win their point that wage payments become a part of parity, look for further jump of 4%. And if, as might well happen, farm wages rise as much as 30% this year, the index would take another 3% hop. These all add up to a 13% rise in the over-all cost of living—enough to make wage earners demand more pay and enough to send the inflation spiral whirling on its merry way. A sales tax would be the last straw.

Said Business Week when Henderson resigned (BW—Dec. 26 '42, p16): "Presumably Brown can, under auspicious circumstances, space the increases so that the price trend will bear at least some semblance to an inclined plane, rather than a straight upspurt." Byrnes is now trying to create those auspicious circumstances, and the strategy is clear: Appease if there's no other way out; divide the opposition wherever possible.

Nobody expects such measures to provide more than a temporary expedient. Soon OPA will have to ask Congress for more money, and that's where the government's back is to the wall. But, until then, Byrnes is still fighting at El Agheila.

*"How about housing?
Which upstate
New York
town can
best handle
our workers?"*



*"I'll bet our bank—the
Marine Midland—can
find out quickly!"*



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WASHINGTON BULLETIN (Continued)

specific plan can be drafted, but the best bet is that it will be patterned in principle after the Ruml proposal.

For Demobilization Day

White House economists are studying postwar demobilization of the Army. This is part of the incubating "employment quota plan" (page 15). Object is to blueprint demobilization so that uniformed men are not dumped back into the labor market en masse.

The schedules would provide that so many men would be given their discharge this month, so many more next month. Those whose old jobs were not awaiting them would be given transportation, say to Pittsburgh, where the Employment Service would shuttle them into steel plants committed to providing jobs up to fixed quotas under the over-all employment responsibility program.

• **Convincer**—No one has to tell the White House that a staggered demobilization will be both politically suicidal and mutiny-breeding unless the country has been sold on a full employment plan.

Renegotiation Hazard

Reports that contract renegotiation in the textile industry will take into consideration prior profits—as shown in income tax returns—is raising an indignant question. Can the Army, Navy, or Maritime Commission peek into anyone's tax report?

The answer is an emphatic yes. A Treasury ruling in 1939 (TD-4929) empowers the heads of executive agencies to take a gander at tax returns on written request to the Secretary of the Treasury providing, of course, that official business is involved.

• **Several Yardsticks**—So far as renegotiation in the textile industry is concerned, prior profits position won't—as rumored—be the only criterion. Military procurement agencies don't want to be tied down to any one yardstick, will renegotiate variously on the basis of prior profits, net worth of the firm, performance of contract, speed of deliveries, etc.

Grade Labeling Out?

Every day that goes by without announcement of specific dollar-and-cents canner price ceilings on this year's citrus fruit pack means that the food industry is just that much closer to defeating mandatory grade labeling. OPA food men discussed mandatory grade labeling at November and December trade meetings as an accomplished fact.



PROMOTED

Eighth Roosevelt nomination to the Supreme Court bench is Wiley Blount Rutledge, Jr., 48-year-old Kentuckian. A U. S. Court of Appeals associate justice in Washington, Judge Rutledge (former University of Iowa law dean) is picked to fill the empty chair of James Francis Byrnes.

The canned citrus price regulation, originally scheduled for publication on Dec. 28, was postponed until Jan. 8, and then postponed again. It was supposed to serve as the basic pattern for all grade labeling.

Capital Gains (and Losses)

Wickard's pressure on WPB has succeeded in pushing up the amount of steel going for farm machinery manufacture. WPB has never retreated openly from its decision to hold farm machinery to 20% of 1940, but Production Requirements Plan allotments being made to individual manufacturers are running about 60%.

The period 1933-43 has been tagged by the Office of War Information as the "Dark Decade." (Don't get OWI wrong; it was thinking about Hitler.)

Now it will be turns on radio tubes as it is on toothpaste tubes. In this way, WPB hopes to provide adequate replacements by preventing hoarding and by salvaging materials.

—Business Week's
Washington Bureau

FIGURES OF THE WEEK

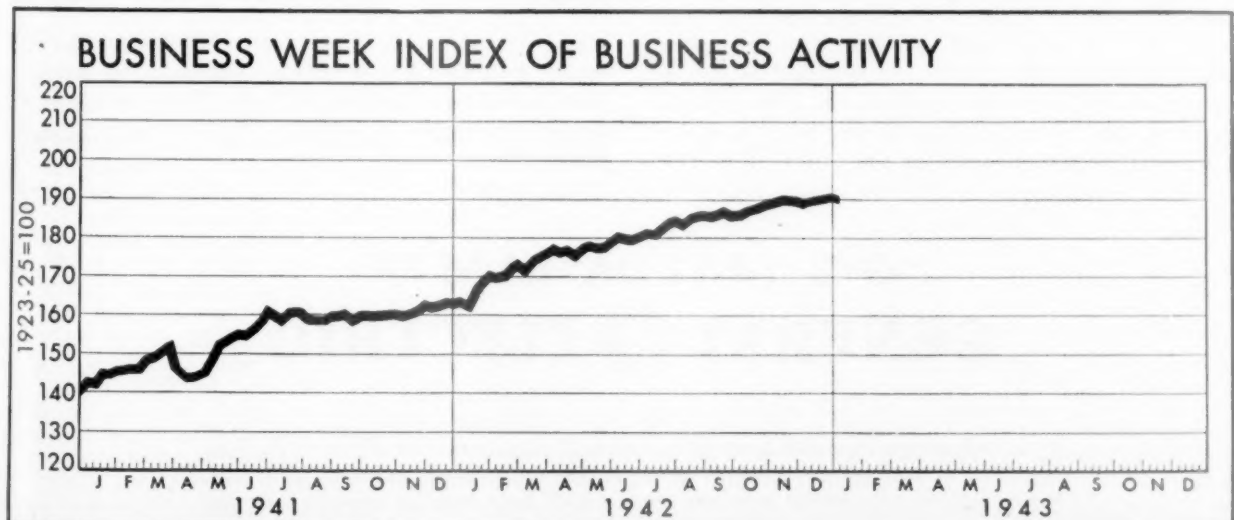
	% Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*191.0	191.4	190.5	182.1	163.6
PRODUCTION					
Steel Ingot Operations (% of capacity)	99.3	97.0	98.4	98.4	95.1
Production of Automobiles and Trucks	17,155	14,930	17,835	22,980	60,190
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$10,305	\$11,325	\$14,343	\$39,683	\$14,983
Electric Power Output (million kilowatt-hours)	3,953	†3,780	3,938	3,429	3,473
Crude Oil (daily average, 1,000 bbls.)	3,821	3,871	3,881	3,657	4,229
Bituminous Coal (daily average, 1,000 tons)	1,860	†1,714	1,853	1,808	1,969
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	73	73	76	80	84
All Other Carloadings (daily average, 1,000 cars)	46	48	51	63	46
Money in Circulation (Wednesday series, millions)	\$15,393	\$15,407	\$14,986	\$12,489	\$11,109
Department Store Sales (change from same week of preceding year)	+5%	+15%	+10%	-2%	+27%
Business Failures (Dun & Bradstreet, number)	95	105	132	159	203
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	243.1	240.6	235.3	233.0	222.3
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	156.9	156.6	155.8	155.3	150.9
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	198.4	196.7	190.5	183.4	176.1
†Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
†Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
†Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.37	\$1.34	\$1.27	\$1.08	\$1.24
†Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	20.41¢	20.20¢	19.60¢	19.87¢	18.59¢
†Wool Tops (New York, lb.)	\$1.191	\$1.194	\$1.203	\$1.244	\$1.275
†Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	78.9	78.3	74.8	69.8	70.7
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.20%	4.25%	4.30%	4.30%	4.28%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.80%	2.81%	2.81%	2.83%	2.83%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.32%	2.35%	2.36%	2.34%	2.38%
U. S. Treasury 3-to-5-year Note Yield (taxable)	1.33%	1.39%	1.28%	1.19%	0.99%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6-months, N. Y. City (prevailing rate)	‡-‡%	‡-‡%	‡-‡%	‡-‡%	‡-‡%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	28,367	28,257	29,011	25,654	23,884
Total Loans and Investments, reporting member banks	41,344	41,467	38,444	32,366	30,132
Commercial and Agricultural Loans, reporting member banks	6,030	†6,074	6,157	6,456	6,722
Securities Loans, reporting member banks	1,116	†1,249	1,134	867	933
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	28,025	27,832	24,843	18,313	15,145
Other Securities Held, reporting member banks	3,284	3,314	3,297	3,392	3,665
Excess Reserves, all member banks (Wednesday series)	2,330	1,660	2,800	2,322	3,385
Total Federal Reserve Credit Outstanding (Wednesday series)	6,378	6,428	5,813	3,069	2,386

* Preliminary, week ended January 9th.

† Revised.

‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.



The Last Hour of the War



NO ONE KNOWS the day or the hour when this war will end. But the end will come sooner as America steps up the speed of war production today . . . and every day. If this is not true, then all our talk of production means nothing.

Yet the life or death of thousands can depend on shortening the war, even by a single hour.

Think what can happen in one hour! A machine gun can fire over 10,000 bullets. An anti-aircraft gun can hurl more than 1,000 shells into the blue.

In a single hour a battleship can throw over 500 tons of armor-piercing steel more than 14 miles. In that same hour a flight of 1,000 bombers can drop 2,000 tons of bombs . . . enough to cause heavy damage in a city as large as St. Louis, or Los Angeles, or Cleveland, or Philadelphia, or Chicago.

No one can say what happened in World War I, in that hour between ten and eleven A.M. on November 11, 1918. But we do know that throughout that morning there were many casualties on both sides. We know that the New York Times published casualty lists showing that 1,021 American soldiers were killed in action or seriously wounded during that one morning's fighting. And some of those casualties must have occurred within *minutes* of the end!

That was World War I . . . compared to which the present war is as a tropical hurricane to a March breeze.

Any war worker who can do *anything* to save man hours on the production of *any* vital war material . . . can feel that he is helping end the war perhaps seconds sooner.

Whatever helps, even a little, to speed the production of war materials, might help bring that last hour of the war nearer. One thing that *is* helping is good lighting. Over and over again we have had reports from war plants of production increases after lighting faults have been corrected. Increases ranging all the way from three per cent to twenty-five per cent or more, *especially on the night shifts.*

Even a 3 per cent increase in production could amount to a staggering total if applied to the thousands of plants that are not properly lighted for efficient night production.

So, if you have anything to do with a war plant, won't you find out whether lighting can work harder in your plant . . . especially at night? General Electric Company, Nela Park, Cleveland, Ohio.

G-E MAZDA LAMPS
GENERAL  ELECTRIC

If you call your nearest G-E lamp office, they will place a trained Wartime Lighting Counsellor at your service. Perhaps his suggestions may help to increase production. Your local electric service company or your G-E lamp supplier can also help you.

THE OUTLOOK

Inventory Pattern Shifting

Stocking-up process has gone into reverse. Result is some "velvet" in materials, but it's only temporary. Parts bottleneck is worrying production men.

The President's budget message (page 82) dominated business news in a week otherwise noteworthy for a precedent-making corn price freeze (page 7) and emergence of novel Administration post-war plans (page 15).

For, his delineation of the war program automatically involved a statement of aims on manpower and materials, civilian supply and food production, taxes and price and wage stabilization.

Arms Goal Set

Outstanding for immediate interest is the President's adoption of a war expenditure goal of 100 billion dollars for fiscal 1944 against 77 billions for the current fiscal year ending next June 30—the program outlined here five weeks ago (BW—Dec.12'42,p13).

Outlays for construction will drop 50% from 14 billions to 7; those for agricultural lend-lease, federal war workers' pay, military pay and subsistence, etc., will rise 35% from 20 billions to 27; and expenditures for munitions will jump 53% from 43 billions to 66. These annual totals actually compare present rates of activity with those that will prevail a year hence, inasmuch as they will be most closely approximated in mid-fiscal-year months.

According to Mr. Roosevelt, "this program is feasible," but also, it is "the maximum program for waging war." So the peaks are in sight. But clearly, great effort will still be called for in munitions.

Production Problems

Materials are no longer lacking, for the simple reason that goals have been limited to supplies, with improved scheduling the major need to effect maximum utilization of those materials.

Manpower can prove a stumbling block. If optimum mobilization and transfer of labor is not attained, some phase of the economy must give way. Theoretically, the civilian sector may be pared. But, the need to do that would show up only after a labor shortage for war asserted itself, by which time armament output could be deranged.

However, the chief bottleneck right now is internal to production. The shortage is in output of valves, bearings, small motors—many kinds of industrial

equipment generally. The need for these is two-fold. In many cases they constitute parts for more complicated munitions end-products. But they are also needed as replacement and new capital equipment for arms fabricating plants.

New Bottleneck Job

Production planners just assumed that capacity for this output would automatically follow along to meet rising needs of end-product arms. It hasn't, and that puts a crimp in arms, requires special new efforts to break the bottleneck.

What makes the situation particularly tight now is the fact that producers, distributors, and industrial consumers of this equipment have been draining inventories to meet the excess of demand over output. And that illustrates the

fundamental shift in inventory trends generally (Outlook Chart).

Normally, when production increases, necessary minimum "in process" stocks of goods also rise, although not in the same proportion. In addition, manufacturers and distributors customarily stockpile more than is needed. During a downswing in business, trends reverse.

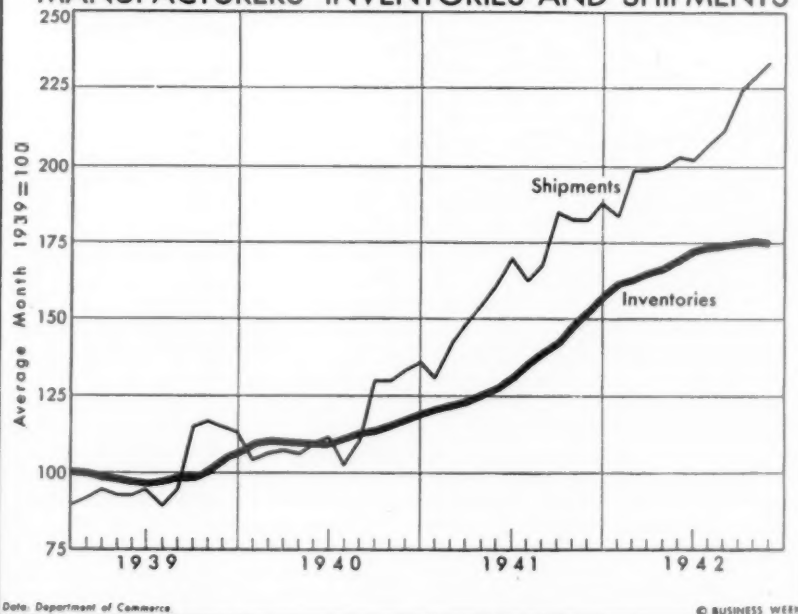
In 1939, 1940, and early 1941, this pattern held. Thereafter, manufacturers sought to hoard materials and semi-finished goods against a price rise and against a later tightening in flow of supplies. Maldistribution of materials and parts in the early days of federal production controls didn't help. The result was that total economic activity was slowed up.

Some Down, Some Up

In the aggregate, the process has gone into reverse. Distributors' stocks began to decline last spring, manufacturers' in the autumn of 1942.

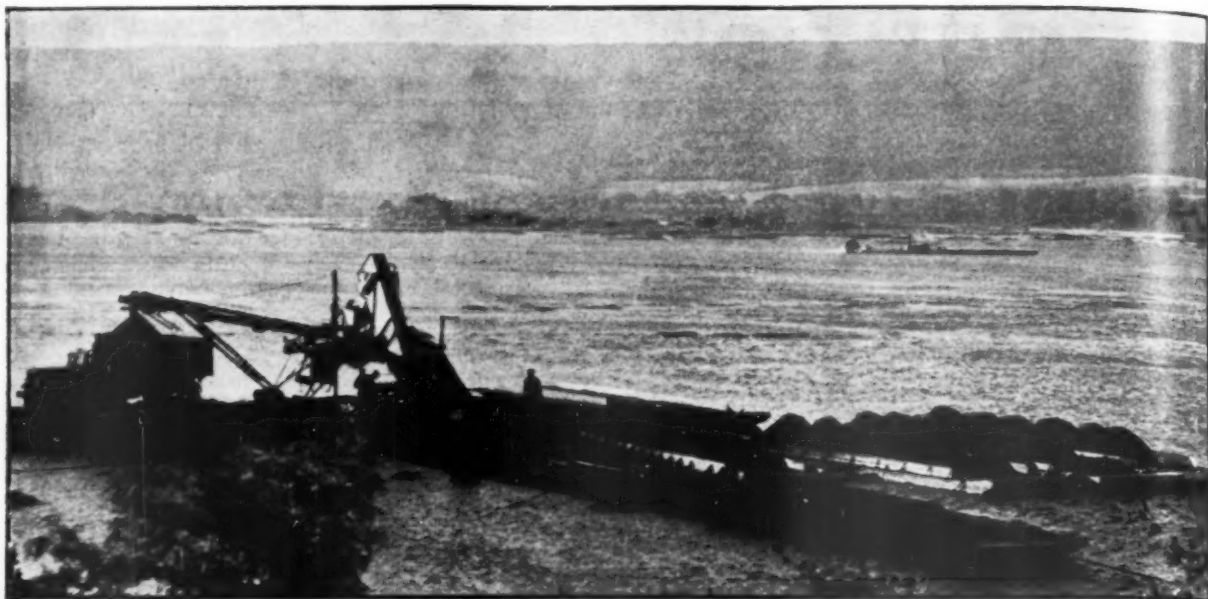
Not all producers' inventories have dropped. They have been drawn down in lumber, textiles, chemicals, paper, rubber. In most durable goods lines they have continued to rise. Only naturally, as production in shipbuilding,

IN THE OUTLOOK:
MANUFACTURERS' INVENTORIES AND SHIPMENTS



As the chart shows, basic shipment-inventory relations have altered sharply since midyear. From the middle of 1941 until then, manufacturers' inventories outstripped the rise in shipments, narrowing the spread between

the two indexes from 40 to 30 points (BW—Oct.3'42,p13). Since then, aggregate inventories have flattened, actually declining in November, and shipments have gained. This has widened the spread to nearly 60 points.



AMPHIBIOUS ANTHRACITE

River coal mining, growing industry in Pennsylvania's Susquehanna, Le-

high, and Schuylkill rivers, is given a new impetus by the current fuel shortages and labor snarls. Silt deposits from mine washers are huge, the

Schuylkill culm being estimated at 24,000,000 cubic yards. Used by industry, the culm is also pressed into briquettes for domestic consumption.

aircraft, ordnance, and other arms soars, necessary goods "in process" mount, too. But, improved working of WPB's materials distribution and inventory controls has recently tended to limit the advance to production requirements.

Temporary "Velvet"

The effect of this paring of stocks to actual needs is to add materials and semi-finished products to current output of goods as they flow along in the production process. But, sooner or later, inventories will come down to a minimum amount of "in process" goods. Then, the "velvet" in materials flow will end. Were new production already at capacity, this would mean a drop-off in total supplies, therefore in total fabrication. Because we are not yet at capacity, it will mean only the attainment of peak supplies sooner than might have been expected from the fact that facilities have yet to come into operation.

But, of course, effects on different sectors of the economy will vary. Lumber inventories have been so steadily drawn upon in 1942 that total supplies from stocks and new output will be off this year. Similarly, because consumer-goods hoards have consistently been reduced, rock-bottom may not be many months off. But total new flow of metals in 1943 undoubtedly will be up.

Almost parenthetically, it is worth noting that, since business stockpiles of goods are apt to be pared to minimum requirements before the war ends, this will leave one more unsatisfied vacuum of demand to be filled in immediate postwar days.

Dilemma in Coal

Shortage threatens users of anthracite, many of whom converted from oil under the government's prodding.

Having urged and ordered everybody to convert heaters from oil to coal, Washington was struggling feverishly this week to avert a threatened shortage of anthracite in the shivering Northeast. The danger was not from stocks or transportation but from a wildcat strike of Pennsylvania miners (page 80).

• **Long Strike Could Hurt**—Coal users wondered how many toes could be kept warm with the 250,000 tons of coal estimated to have been lost through the strike by the beginning of this week. Since anthracite production runs normally around 1,200,000 tons a week, the danger was potential rather than actual. Ordinarily there is a two-day supply of anthracite in New York yards and another three days' supply in transit.

Anthracite is sold mostly to domestic users for heating houses, apartments, hotels. Big industrial users, including public utilities, usually burn bituminous. Anthracite buyers usually haven't the space, often they haven't the money, for big stocks; hence they rely on the proximity of the mines and prompt service from dealers.

• **Timed with Price Rise**—The strike exploded in the face of a rise of 50¢ a ton in the ceiling price of hard coal allowed

by the Office of Price Administration, effective Jan. 9. With the order went an OPA request that dealers limit deliveries. The rise is designed to compensate for overtime cost in an agreement to put anthracite mines on a six-day (42-hour) week instead of the five-day (35-hour) week, with time-and-a-half overtime pay for the extra day.

There are grave doubts that the extra day will add anything like a normal day's output, even though the anthracite contract permits the operators to penalize the miners for unnecessary layoffs—which are a part of their tradition. The seven-day week allowed for the western bituminous fields has been of small benefit to production.

• **U.M.W. Balks**—Operators seek to apply the six-day week to the eastern bituminous fields. They expect OPA to allow them an increase of about 20¢ a ton. But the United Mine Workers of America balks at giving bituminous companies the right to discipline miners who don't work the full week.

Talk of coal shortages is doubly embarrassing to Solid Fuels Coordinator Harold L. Ickes and his fellow officials. They not only are obligated to provide war industries with sufficient coal, but also are duty-bound to see that both commercial and domestic users who have switched from oil at government insistence have coal for their converted boilers.

It is estimated that output last year reached 565,000,000 tons of soft coal and 60,000,000 tons of anthracite. This was an increase of about 10% over 1941.

New Deal Postwar Plan

Behind that social security program, the Administration is working on a political security platform—"production for employment," with a minimum job quota for each industry.

Social security isn't enough and Roosevelt knows it. If that were all the President had to offer, it might sound like the swan song of the New Deal—a confession that it can promise nothing except alleviation of the hardships of a postwar depression.

Actually, the President will not stop there. For the first time in six years, he is going to bring forward a brand-new formula for full employment and prosperity. He's relying on it to give the dying New Deal a rebirth after the war.

• **Congress Disarmed**—The sweeping, radical nature of the President's plans was obscured, almost disguised, by the general terms in which they were stated in his message to Congress. A Congress ready to go to the mat with him on almost anything he might propose was disarmed. Nobody could quarrel with "social security" and with "full employment" as having a place among the larger objectives for which we are fighting.

Roosevelt might have been talking merely about more relief, more insurance for unemployment, more stimulation of the economy to create employment (the old pump-priming technique), but he wasn't. He is offering the definite promise of a job for every man—a job, if necessary, by government fiat.

• **Industry Job Quotas**—So far only the objective is agreed upon by the President and his advisers. No single plan has yet been brought forward that has the unanimous endorsement of the New Deal hierarchy, but the proposal uppermost in discussion in the White House circle is to assign industry definite employment quotas, tell it that it must hire at least so many men at a minimum weekly wage.

What this boils down to is production for employment, rather than for profit, within the framework of the private profit system. To sweeten the pill for industry, one version of the plan harks back to the NRA for its organization. It conceives of each industry along code lines for the purpose of determining quotas for employment responsibility.

• **"Guaranteed" Market**—Thus, for example, the steel industry would be called in and told that it must provide employment, at a minimum weekly wage, for say 600,000 workers. It would be told that the economy is going to be run at a one hundred and umpty-umph billion dollar national income level. It

would be assured that there would be a market for all its steel—even if an important factor in that market had to be the government, buying to plough under. Further, it would be told to distribute its employment quota of 600,000 among the firms in the industry as it saw fit.

Washington would not presume to tell Bethlehem how many it must have on its payroll, or Republic, or Jones & Laughlin. What the government would do is to fix the over-all industry quota and review it periodically to see whether an altered product demand had affected the claims of all industries on the labor market.

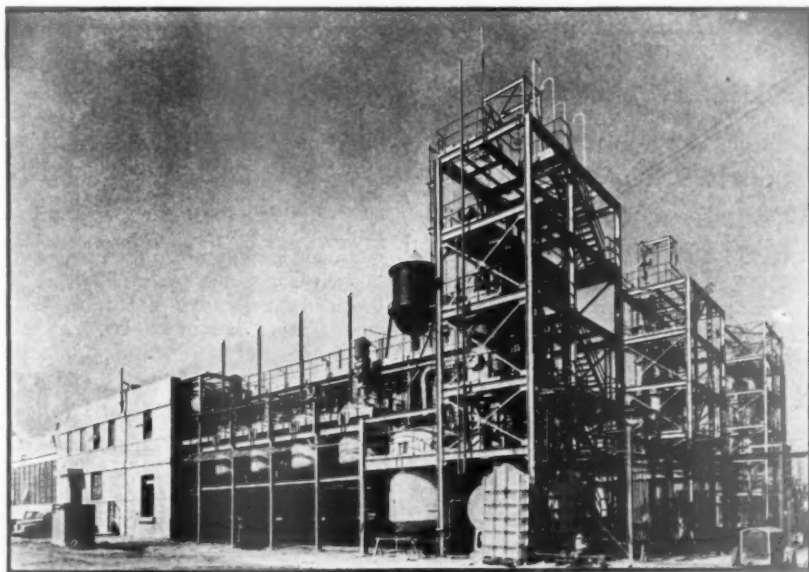
• **At the Top a PPB**—Being considered for the administrative mechanism in the employment-quota program is a postwar production board. Ready to hand is the present WPB and the facilities that it is developing for regulating industrial production in accordance with an over-all demand pattern. Among WPB's personnel there would be many who, by inclination and aptitude, would

remain to form the postwar organization of the new board.

The insiders feel the political oomph of so definite a freedom-from-want program will be terrific, notably with the boys coming home from the war, and that its appeal is going to be hard for any politician to oppose. The manner of its submission to Capitol Hill will be such as to court the participation and the support of the congressional vote-gatherers.

• **Play to Congress**—The approach will be made in a proposal by Senator Wagner for the creation of a Postwar Planning Commission, jointly composed of representatives of House and Senate, with an equal number of Presidential appointees. By playing to congressional ambition to take a large hand in postwar policy-making, the Wagner measure aims at getting wider support than could be counted on if an Administration blueprint were submitted to Congress in its present rebellious state.

But once the commission is established, a Roosevelt-endorsed program will quickly show up on its desk. The full employment program, if adopted, will subordinate the enlarged social security program proposed by the President (BW—Jan. 9 '43, p5) and is counted on to ease the burden of that program. This measure—also to be sponsored by Senator Wagner—will stand on its own feet.



RUBBER—HOME STYLE

Less than one per cent of the number of workers needed to produce natural rubber in the East are operating the four autoclave units of a government-owned synthetic rubber plant, constructed and run by Firestone Tire & Rubber Co. to turn out an equivalent of the rubber from 100,000 acres of

trees. Each of the plant's dome-shaped polymerization tanks produces hundreds of pounds of Buna-S latex at a crack in a process so automatic that ingredients are unseen until they emerge as coagulated dry rubber. Attracting attention is the baling process, which increases density of the synthetic rubber from 20 lb. to 50 lb. a cubic foot to expedite rolling.

Terms on Your Postwar Auto

Should the government put the Nugent Plan of installment selling for postwar delivery into effect, consumers could buy certificates entitling them to a claim on postwar autos, refrigerators, pianos, and heating systems. Auto certificates would come in denominations of \$700, \$1,000, \$1,400, and \$2,000; piano and heat-

ing equipment certificates would have values of \$200, \$300, \$400, and \$500; refrigerator certificates would be in series of \$100, \$150, and \$200. Here is the schedule of installment payments, the value of the certificates when augmented by 10% in lieu of interest payments, and the cash value:

Merchandise Value of Certificates	Cash Value	Down Payment	Installment	Payments
\$110	\$100	\$3	1 @ \$9	11 @ \$8
\$165	\$150	\$4	10 @ \$11	3 @ \$12
\$220	\$200	\$5	13 @ \$14	1 @ \$13
\$330	\$300	\$6	6 @ \$19	10 @ \$18
\$440	\$400	\$7	15 @ \$22	3 @ \$21
\$550	\$500	\$8	12 @ \$25	8 @ \$24
\$770	\$700	\$9	19 @ \$33	2 @ \$32
\$1,100	\$1,000	\$10	22 @ \$45	
\$1,540	\$1,400	\$11	9 @ \$61	14 @ \$60
\$2,200	\$2,000	\$12	20 @ \$83	4 @ \$82

Dealers who sell the certificates would get commissions as follows:

Purchase Price of Certificate	Initial Commission	Secondary Commission	Total Commission	
			Amount	% of Purchase Price
\$100	\$3	\$1.94	\$4.94	4.9
\$150	\$4	\$2.92	\$6.92	4.6
\$200	\$5	\$3.90	\$8.90	4.4
\$300	\$6	\$5.88	\$11.88	4.0
\$400	\$7	\$7.86	\$14.86	3.7
\$500	\$8	\$9.84	\$17.84	3.6
\$700	\$9	\$13.82	\$22.82	3.3
\$1,000	\$10	\$19.80	\$29.80	3.0
\$1,400	\$11	\$27.78	\$38.78	2.8
\$2,000	\$12	\$39.76	\$51.76	2.6

Nugent Test Due

Postwar buying plan is ready for its bouquets and brickbats after changes, but Congress holds the key.

The next few weeks will tell whether the Nugent Plan, popularly known as "installment selling in reverse" (BW—Jul.18'42,p67), will be adopted. Rolf Nugent, special OPA adviser, has issued a comprehensive, 120-page version of the plan. Leon Henderson has come out for it, and government and industry are drawing up their lines for debate.

• **Treasury Remains Cold**—Thus far, Nugent's omens aren't entirely auspicious. The Treasury is miffed, apparently feeling that Nugent failed to follow protocol in that he talked to the press as much as to Secretary Henry Morgenthau's boys. Morgenthau, in fact, has indicated that he is irked by publicly stating the plan might tangle up bond sales, cost more to operate than bond drives, and work to the disadvantage of men in the armed forces. Nugent disputes all these allegations.

Also among the dissenters are many automobile dealers who—after an initial

burst of enthusiasm—now figure that Nugent's idea makes postwar price-controls and rationing necessary. Sales finance companies similarly are skeptical, keep muttering that their cut is too low and that, furthermore, if postwar goods are paid for now, how will they stay alive in postwar days?

• **Some Are Warm**—On the other hand, Nugent has a due share of friends on the Federal Reserve Board, in OPA, among large manufacturers, and certainly in the advertising profession, which envisions a field day if and when Nugent comes to bat.

Long the Russell Sage Foundation director of consumer credit studies, Nugent devised his plan of installment selling for postwar delivery on the theory (1) that spending can be used to reduce the inflationary gap, (2) that it is psychologically easier to drain off money by promising a postwar auto or refrigerator rather than the mere redemption of a bond, and (3) that merchandise sold for postwar delivery will create an orderly peacetime production-marketing pattern.

• **Plan's New Draft**—As now revised, the plan shapes up as follows:

(1) Certificates would be offered for sale, the money later to apply against purchase of postwar autos, pianos, refrigerators, and heating systems. (Nu-

gent expects to add other categories at a later date.)

(2) Actually, the consumer would not be promised that his certificate will equal the exact purchase price of postwar goods. But the money would be roughly what an auto, refrigerator, etc. would cost, and the consumer would get priority on the merchandise.

(3) Certificates would appreciate 10% in value when applied against postwar goods. That is, a paid-up \$700 certificate would buy \$770 worth of goods, 7% of the 10% appreciation being kicked in by dealers, and 3% by manufacturers. Cash value of the certificates would be equal to the amount paid in less a small penalty.

(4) Monthly installments for civilians are indicated in an accompanying table. Installments for men in the armed forces would be much lower.

(5) The plan seeks to keep alive dealers and finance companies. (Dealers' cut of certificates is also indicated in the accompanying table.) Finance companies (who would keep books on the installment payments) would get 14% on all payments of less than \$30, 1% on payments over \$30, and a part of the penalty charged against purchasers who fall in arrears. Telephone and utility companies would be entitled to collect money on the basis of 7¢ an item.

(6) Inasmuch as manufacturers and dealers would fork up the 10% appreciation, the Treasury merely has to pay commissions to dealers and to the collection, bookkeeping, and banking agencies. Nugent claims that such commissions would compare favorably with the low interest now paid on bonds.

(7) Nugent would set up a Post-War-Delivery Corp. as a Federal Reserve Board subsidiary to handle contracts and supervise workings of the plan in general.

• **A Four-Point Aim**—In a nutshell, the plan seeks to take money away from civilians, enlist dealers and sales finance companies in the campaign, provide the Treasury with war money, and help bring about an orderly postwar economic world.

Whether or not Nugent's idea makes postwar price-control mandatory is debatable. He thinks demand will be equated to supply (through government-supervised calling of priority numbers), and that this will hold prices down.

• **Congressional Help Needed**—Legislation is necessary before the plan can operate. Since priorities are akin to rationing, Congress would have to okay that part of the plan.

Nugent and his staff are preparing charts and presentations of the revised idea, will circulate this material at dealer and manufacturer gatherings. Total net drain-off, estimated by Nugent: \$3,000,000,000 the first year and \$4,500,000,000 in the second and third years.

Autos To Come

The motor industry sees a postwar period of radical changes and a running fight against newcomers.

Detroit is thinking about postwar automobiles, although casual research is the only indication to date. Three factors have set postwar thinking in motion: (1) Washington sentiment that the time is near for economic peace planning; (2) tooling for war is close to the point where some technicians may be released to civilian pursuits; (3) interest of outsiders in the postwar automotive field, notably West Coast aircraft companies and shipbuilder Henry Kaiser.

• **Encouraging Signs**—Recent straws in the wind are a prediction by Ford's Charles E. Sorenson that he may be able to get into car production within two or three months of the armistice and a statement by Packard's George E. Christopher said that his firm's first postwar model would "resemble the 1942 Clipper."

Auto men as a group read encouragement of embryonic planning in recent statements by Vice President Henry Wallace, WPB Chief Donald Nelson, and others. Not the least encouraging is Commerce Secretary Jesse Jones's lively interest in the Committee for Economic Development (BW-Jan. 2'43, p27), one of whose champions is Studebaker President Paul G. Hoffman.

• **Big Invasion Threatens**—While auto men are wary of risking public disfavor by jumping the gun on business-as-usual sentiments, they've started postwar research projects that can be expanded the minute war production pressure drops. Big spur to these studies is threats of newcomers to the field—such as Kaiser's ultimatum that if motor companies don't make new, light, modern cars after the war, he will. Kaiser's remarks are not being kissed off.

The industry notes also that Consolidated Aircraft's Tom Girdler has absorbed the Stout Research Laboratories and its progressive engineer, William B. Stout. Additional discomfort is found in reports that other plane builders are making preliminary studies of automobile design, production costs, and distribution methods.

• **Industry's High Cards**—How motorism will meet invasion threats remains to be seen. From aircraft work, it has learned the advantages of lightness and power plant compactness; from its war program, tricks and shortcuts in tooling and production. Another ace in the hole may be the industry's established trade names.

In any event, no revolution on wheels will hit the streets six months after hos-



TRANSPORT TITAN

Speedier than a Japanese Zero, big enough to fly a tank and troop com-

plement overseas, Lockheed's new Constellation transport has passed its flight test. That's the signal for large scale production of these ships.

tilities cease. First will come a slightly-modified edition of 1942 models while dealer setups are rehabilitated and technical difficulties are overcome, experts believe. Then come the changes.

• **What to Expect**—No immediate swing to rear-engined, light-weight, tear-drop designs is likely because the public remains traditionally conservative in taste. However, it's a good bet that newcomers will be ready to introduce innovations that will influence both the industry and its customers.

Design-wise, postwar cars will then be radically different. Engines are likely to go to the rear, making customary hoods into foreshortened luggage compartments. Bodies will tend toward stubby, spherical outlines to reduce wind and drag resistances on the lighter assemblies.

• **Upkeep Will Drop**—Lighter weights will result from smaller engines (generating greater horsepower in proportion to weight due to use of high-octane gasoline) and perhaps from the use of more aluminum. Mechanically, postwar automobiles can be expected to operate more economically. While they may become obsolete quicker in the first flood of radical changes, wearing qualities should be greater. One example may be greater bearing life, achieved by opposing hard nitrided surfaces with softer silver-backed bearings.

But Detroit believes the entire aspect of the postwar car will be influenced mostly by the economic state of the country. If Mr. and Mrs. John Q. Motorist are reduced to marginal living by the war, prices for automobiles will have to be pared to about half the levels of 1942.

Union-Farm Tilt

Word battle may become all-out war as unions try to gag farm opponents with a tax threat in Illinois.

Labor's resentment at farm spokesmen's generally hostile attitude toward high wages and overtime pay is threatening to flare into an open battle in Illinois. What stirred up the hornets was a succession of recent farm sessions that sounded off in terms to which union leaders take exception.

• **Farmer Tax Threatened**—Now the Illinois State Federation of Labor proposes to sponsor frankly retaliatory legislation to impose a 50% state tax on all income received by farmers from the federal soil conservation program. No bill has been submitted as yet, but the federation will have one introduced if farmers don't pipe down.

Aside from their desire to gag vocal farm hostility, the unions assert they have a sound economic basis for their program. Their grievance comes down to a claim that, in the past two years, workers have bought \$2,000,000,000 worth of war bonds while farmers have been taking \$1,000,000,000 for not tilling the soil.

• **Washington's Ear Sought**—Proclaimed purpose of the federation's move is to stir up enough commotion so that the government will not back down in deference to the farm bloc, but rather go through with its announced intention of dropping the soil conservation program.

Foil's Big Bid

Adding research to its experience, Reynolds Metals Co. prepares for a revolution in packaging materials.

Reynolds Metals Co. is putting in its bid for a big postwar place in the packaging industry with a traveling exhibit that's designed to promote its metal-foil processes and materials. Contained in a big bus, the display of packaging machinery and samples of its work will appear at most of the major American industrial centers.

• **Trend Delayed by War**—In looking to its future order books, Reynolds hopes to side-step depression and use its expanded production facilities on a sideline it developed a few years ago when the food and drug fields warmed up to foil packaging. Development of eye appeal, with discovery of color process printing, had opened the way for a new source of revenue when the war slapped on a damper.

A few of the successful newcomers to foil containers were G. Washington (coffee); Brandywine (mushrooms); Steero (bouillon cubes); Shinola (polishes); Brahma (tea); and Sucrets (throat lozenges). There were, in addition, numerous brewers, including such top-notchers as Schlitz, who switched to metal labels.

• **Combinations Developed**—Even before war demands shrunk civilian uses of metals, Reynolds found a new source of demand in military and lend-lease products. These presented problems of protection against heat, moisture, vermin, rough handling, and body sweat since products packaged for the government were going to every part of the world.

To meet such conditions, while incidentally gaining valuable packaging experience, the company worked up composite packing materials by combining old reliable coverings and adding a few new ones. Principal combinations were lead foil, kraft paper, bond paper, asphaltic sealer, cellophane, and thermoplastic adhesives. Laminations of these produced new containers having the aggregate advantages of all.

• **Wide Military Uses**—Foil war packaging has an increasingly wide range. The Red Cross presents each embarking service man with a waterproof match pack sealed with metal; Gothan Bandage Co. uses a foil-lined bag for plaster of paris compounds used in emergency fracture treatment; every soldier carries to battle a laminated envelope containing a quart of Squibb's burn-soothing tannic acid jelly and a moisture-proof packet of Epsom salt.

In the field of military supplies, 20-lb.

boxes of macaroni go overseas in a six-layer envelope of 40-lb. dense kraft, asphaltic compound, thin lead foil, adhesive, 30-lb. bond paper, and thermoplastic inner coating; dehydrated potatoes, beets, and other vegetables go in similar containers instead of 5-gal. tin cans, as formerly; chocolate emergency lifeboat rations travel in containers of cellophane and foil laminations.

• **The Postwar Outlook**—From its pre-war experience and recent experiments, Reynolds feels it has found outlets for 60% of its wartime ingot production. While the company believes a postwar



Lifeboat rations in Reynolds's laminated packet defy the elements.



Foil again, to foil that horror of humid jungle fronts—soggy cigarettes.



Crush-proof packet for "sulfa" pills withstands bumps of service belts.



Composition foil cases keep matches dry even after long immersion.

drop in metal prices will attract many additional products to foil, it has no illusions that such materials as pliofilm, cellophane, and vinylite will be obsolete. In fact, officials believe wider uses of metal will aid these materials since many laminations will be needed.

In its postwar planning, Reynolds is concentrating on 15 major items:

- (1) Multi-ply, gravure-printed, heat-sealed wrappers for cigarettes.
- (2) Heat-sealed envelopes for dehydrated foods.
- (3) Multi-ply, gravure-printed chewing gum wrappers.
- (4) All-metal wrappers for cheese.
- (5) Heat-sealed wrappers for candy.
- (6) Metal bags for coffee.
- (7) Packages for cereals and breakfast foods.
- (8) Packages for drugs.
- (9) Foil-wall fiber cans.
- (10) Foil-fiber cans for motor oils.
- (11) Packages for shortening.
- (12) Packages for dry chemicals.
- (13) Cigar wrappings.
- (14) Packages for fruits.
- (15) Packages for frozen foods and meats.

• **New Process Helps**—The company's long-range view is based on the premise that practically anything now packed in cans—and many things in bottles—can be put up in space-saving, cheaper metal-foil. A big factor is that Reynolds technicians have developed processes for rolling 1 lb. of aluminum into 60,000 sq. in. of foil that has the same strength as the thinnest commercial grade now available (40,000 sq. in. per lb.).

OCCUPATIONALLY ESSENTIAL

Whatever their other duties, members of union-management negotiation committees in war production plants are deemed "essential" by Selective Service and therefore entitled to consideration for occupational deferment. In the same category are those who supply technical, scientific, and management services, and those employed on technical and scientific books and journals.

In so advising local draft boards last week, Selective Service also listed 34 essential occupations in repair and hand-trade services, including auto mechanics and electricians, and a dozen in health and welfare services. Essential repairmen include those who repair bicycles, motorcycles, autos, buses, trucks, tires, typewriters, business machines, elevators, radios, refrigerators, clocks, tools, etc., as well as roofing, electrical, gas, and plumbing installations.

These are not blanket deferments, but are to serve as a guide to local boards, which must be satisfied that a given man is actually necessary in a particular occupation.

Ruml Heat On

Pay-as-you-go advocates seek showdown in Congress. Treasury's double-up scheme eyed with suspicion.

Now that President Roosevelt has demanded a further boost of \$16,000,000,000 in federal taxation, bringing the total load nearly to \$50,000,000,000 (page 82), the fight for pay-as-you-go taxes is going to get really hot. Advocates of the Ruml plan (BW—Sep. 5 '42, p16) or some similar system for collecting taxes at the source every payday already have lined up impressive support in Congress; next they will demand a showdown.

• **Corporate Gross Tax?**—The question of pay-as-you-go taxation has been broadened with the suggestion of Walter F. George, chairman of the Senate Finance Committee, that corporations be nicked for 5% out of their gross receipts. If this proposal had come from anybody but Sen. George (he warded off even higher corporate income taxes in the last Revenue Act), it might carry less weight. Even with his sponsorship, there's a question (renegotiation notwithstanding) whether most of the added burden wouldn't be tacked right onto Uncle Sam's bill for armaments, the major source of most big corporations' gross revenues.

The pay-as-you-go fight has shifted ground since last summer when Beardsley Ruml, chairman of the New York Federal Reserve Bank and treasurer of R. H. Macy & Co., brought out his "daylight saving" proposal for setting the tax clock one year ahead. The question is no longer whether the country should put tax collections on a current basis. Big issues now are how and when.

• **Congressmen Sympathetic**—This new battle is more a fight between the Treasury and Congress than a disagreement on Capitol Hill. From the first, congressmen have been sympathetic toward the Ruml plan. Only the Treasury's violent opposition kept them from writing it into the 1942 Revenue Act. In the next few weeks leading supporters of the Ruml plan will try to cash in on this sympathy and force an immediate decision. The Treasury's strategy will be to attack the Ruml plan as unfair and impractical, at the same time trying to sell Congress a pay-as-you-go scheme that does not involve forgiveness of a year's taxes.

Two bills already introduced in the new Congress contain the main principles of Ruml's suggestions. Basic idea is to put taxpayers on a current basis by the simple bookkeeping device of applying this year's payments against this year's taxes instead of last year's. In the



Increasing agitation for putting the nation's taxes on a pay-as-you-go basis makes Beardsley Ruml, author of the Ruml plan, the taxpayers' messiah.

long run this would mean "forgiving" one year's taxes; that is, in the course of his lifetime a taxpayer would pay one year's taxes less than he would have otherwise.

• **To Judgment Day**—Actually there would be no loss to the Treasury and no immediate cash gain for taxpayers as a whole. Although the government would forgive 1942 tax debts, it would collect 1943 taxes a year earlier. Hence, its flow of income would be uninterrupted. One strong supporter of the Ruml plan put it this way: "The Treasury would get the same income right up to the end of the world. Come the Day of Judgment and it would take an awful loss, but on the Day of Judgment the Treasury is going to have so much else to answer for that it won't even think about taxes."

The Treasury has consistently balked at the idea of forgiving a year's taxes. From the beginning, Secretary Morgenthau and his advisers have attacked the Ruml plan on the ground that it would give a windfall to big taxpayers who have large incomes in the year that is forgiven and small incomes the next year. They have also raised a variety of other objections, but the windfall-gain argument is their heaviest piece of artillery.

• **Partial Forgiveness**—As a counter to the Ruml plan, the Treasury has suggested forgiving taxes on 1942 income up to a certain amount (\$2,000 is the figure most often mentioned) and collecting the remaining tax along with the tax on income of the current year. This would mean that middle and upper income taxpayers would have to carry a double load in the transition year.

Many Ruml plan supporters would be willing to compromise on a scheme that

would remove the windfall objection without making taxpayers double up on their payments in the adjustment year. For instance, it would be possible to forgive taxes only on the lower income regardless of which year it was earned. The Treasury, however, has held out against any modification of its plan.

• **Treasury Criticized**—This stubborn policy hasn't made friends for the Treasury either in or out of Congress. Beardsley Ruml spoke to a sympathetic audience when he charged that the Treasury's objections "lack force and even sincerity." Another supporter of pay-as-you-go summed up a popular explanation when he declared: "The only objection Morgenthau has to the Ruml plan is that he didn't think of it."

Several congressmen, however, believe that the Treasury has another objection, less obvious but more important than reluctance to take advice. They think Secretary Morgenthau and his advisers want to use their shift to pay-as-you-go collection as a means of getting what will amount to higher taxes on the middle and upper income classes.

• **Same Effect**—When Congress was writing the 1942 tax bill, the Treasury campaigned for a schedule of rates that came down much harder on the middle and upper brackets than congressmen would accept. Suspicious critics now think the Treasury is trying to set up the transition to pay-as-you-go so that the effect on taxpayers will be the same as the rate schedule Congress turned down. If middle and upper income groups have to pay two years' taxes at once while the bottom groups get complete forgiveness, the effect will be similar to the schedule of rates the Treasury tried to write into the last tax bill.

Margarine's Day

Higher production quota as a butter stretcher opens new vista of postwar sales; it's now a matter of oil supply.

Margarine manufacturers rejoiced this week that WPB increased production quota for civilian consumption from 110% to 180% of 1940-41 average output (BW-Jan. 9 '42, p. 89). The purpose, of course, is to relieve the current butter shortage. At the same time, many were doubtful of getting enough vegetable oils hardened by hydrogenation to turn out this quantity of margarine in addition to heavy government demands.

• **Can the Oils Be Had**—Combined, these requirements would boost the 180% to something like 225% of average '40-'41 production. Since 1941 production was 365,000,000 lb., the new quota will authorize production for civilian use of about 600,000,000 lb. in 1943. Lend-lease purchases for shipment during January, February, and March were 40,000,000 lb., and it is expected that requirements for the entire year will be between 100,000,000 and 150,000,000 lb. Industry capacity is ample to handle this production, but the stumbling block is the shortage of hardened vegetable oils, which make up 50% of oleomargarine.



HOME-DRIED HARVEST

Housewives may soon be "drying out" (instead of "putting up") fruits and vegetables in an inexpensive, electrically run wooden home dehydrator, now being developed at the Agricultural Experiment Station, University of Tennessee, Knoxville, in cooperation with the Tennessee Valley Authority. The household model, likely to go into production early this year, holds 30 to 50 bushels, and costs 3¢ to 4¢ per dried pound.

When WPB staged a conference with seven leading margarine manufacturers in Washington on Dec. 10, it was generally thought that the supply of vegetable oils was adequate, if not excessive, and would cover the boosted quota of margarine for civilians. Since then, say manufacturers, the stockpile has disappeared, either because estimates were over-optimistic or because there are just too many channels draining the supply.

• **It's Hand to Mouth**—During the current crushing season, when oil would normally be pouring into storage tanks, current requirements are taking most of the output. Refineries are choked with huge government orders for hardened oils for shortening. Those margarine makers who own their own refineries can count on getting by, but those who depend on other hydrogenating plants are really in a spot.

Most top-quality margarines, such as Good Luck (Jelke), Nucoa (Best Foods), and Parkay (Kraft), use cottonseed oil. But because soybean oil is much less critical than cottonseed, some of it may have to be used in first-grade margarines.

Ordinarily used in secondary-grade margarines, soybean oil is considered by some manufacturers to be poorer in keeping qualities.

• **Milk Also a Problem**—Second most critical ingredient is ripened skim milk, which constitutes 17% of the finished product. Manufacturers have been able to get enough milk for present production, but they shake their heads over the prospect of obtaining enough to fill the new quota and lend-lease orders as well.

Already manufacturers are unable to meet the suddenly increased civilian demand for their product resulting from the butter shortage (BW-Dec. 26 '42, p. 19), and many have discontinued their lower priced brands (usually 5¢ or 6¢ below top quality), preferring to use their limited quantity of hardened vegetable fats for the higher priced product. If you find it easier to get margarine—or butter too, for that matter—at the neighborhood store or delicatessen than at a chain grocery, put it down to the fact that since they must make a choice, producers would rather sell through channels giving them the best markup.

• **Eye on Postwar Market**—Margarine makers hope wartime acceptance will give them a winning round in their long feud with butter makers. They hope it may even do away with some of the heavy state and federal taxes that virtually prohibit the sale of margarine in more than one-fourth of the states (BW-Jul. 15 '39, p. 34).

Many consumers, they say, not having tasted margarine since World War I, are pleased with its improved flavor, nutritional value, and low cost, and may well continue to use it even after butter is available.



Winding north 1,800 miles, the graveled Alcan Highway joins famed Dawson Creek and southern Alaskan towns. Plans for a 70-m.p.h. speedway were abandoned to beat the deep freeze, but construction may push another 700 miles farther to Nome by next summer. Only rail connection between the highway and the Pacific is a narrow gage track between Alaska's Skagway and Whitehorse, Canada.

Blazing the Alcan

Incessant military traffic mocks early fears that Alaska highway couldn't be completed from thaw to freeze.

Last spring, when the Japanese menace made an overland route to Alaska a military necessity, even high-ranking Army men doubted that the 1,800-mile highway could be finished in time to transport supplies during this critical winter. Now, with military traffic rolling day and night across the wilderness of British Columbia and the Yukon, the last doubt about the Alcan highway has been dispelled.

• **Eastern Route Chosen**—Instead of following the chute between the Coast and the Rocky Mountains, the Army picked a route east of the Rockies to let the road serve joint U. S.-Canadian military airports already established. Critics complained that the route traversed hundreds of miles of almost impassable muskeg swamp; that even if the road

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-- the recording speedometer

Agon Haupt, general manager of Haupt's Milk Transit, Manitowac, Wisconsin, recently wrote the Wagner Electric Corporation as follows:

"We are now operating a fleet of 23 tractors and 19 trailers and have them all equipped with your Tachographs.

"We feel that since we installed them about ten months ago, they have proved very successful and are well worth their initial cost. We have had no trouble with the machine itself, and believe they have saved us a great deal of time and money by increasing the life of tires and other essential materials that are vital to the war effort.

"The drivers also seem to be taking more caution on the highway, and would sooner drive a truck equipped with a Tachograph than one without."

INSTALL TACHOGRAPHS on YOUR TRUCKS . . .

Eliminate wasteful driving
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A Tachograph is a recording speedometer. Mounted on the dash of a truck, it provides daily operating facts to guide you in the conservation of your vehicles.

A chart, placed inside the Tachograph at the beginning of the day, automatically records every movement of the truck. It shows the time the engine was started, distance and speed traveled, as well as all stops and length of stops.

At the end of the day the chart is removed from the Tachograph, and you have a record of how carefully and efficiently the truck was driven.

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For complete information, ask for a copy of descriptive booklet "Savings & Safety." It tells all about the Tachograph manufactured by Sangamo Electric Company, and distributed exclusively by the Wagner Electric Corporation.

AUTOMOTIVE PARTS DIVISION 843-1
Wagner Electric Corporation
6423 Plymouth Ave., St. Louis, Mo., U. S. A.



Slicing through wilderness thought impassable, the Alcan Highway, war monument to doughty Army and private construction men, now teems

with military traffic. A postwar agreement with Canada for joint control is expected as it opens up vast rich areas and great tourist possibilities.



were built, it could hardly be kept open in Arctic storms and at temperatures of 50 deg. below zero.

Yet the Army, before the spring thaw, threw in seven regiments of engineer troops to attack the job at six different points. The last rail point was (and is) Dawson Creek, B. C., terminus of the Northern Alberta Ry., which starts from Edmonton, Alta., 500 miles southeast.

• **Built in One Season**—In temperatures as low as -47 deg., the first outfit

trekked 325 miles from Dawson Creek to Ft. Nelson, walking with equipment and carrying four months' rations. Army engineers and 54 contractors, working under the supervision of the Public Roads Administration and four managing contractors, built the 1,800 miles of road in one short construction season—between spring thaw and autumn freeze.

Army locators, blazing the center line along the route picked from aerial photographs, bypassed the muskeg for all but

**GIVE your shirt...
or LOSE IT!**



In this war two people want your shirt!

The enemy wants it for keeps.

Your Uncle Sam wants it for the duration.
He wants "the shirt off your back."

And he wants it quick!

Too Little and Too Late won't do! . . . the
armed forces of America can't protect
your Liberty with that kind of Laundry!

They need all you've got to give in the
shape of heart and energy . . . all you can
scrape together in the shape of earnings
and savings . . . all you can contribute in
the shape of voluntary self-denial and
ungrudging time!

And, above all, they need it now!

They need "the shirt off your back" and all
that it means in sacrifice that's generous,
spontaneous and immediate.

And here are three lines to hang it on:

- ★ Hang it on the Assembly Line with Sweat!
- ★ Hang it on the Dotted Line with Bonds!
- ★ Hang it on the Firing Line with Speed!

For, only Sweat and Bonds and Speed
will bring us Victory and only Sweat
and Bonds and Speed will bring our
boys back home.

Come on, America . . . Shirts Off!

Let's get it over QUICK!

This is the slogan of Carrier Corporation. It was
suggested by a factory worker, who wrote: "... we
keep hearing and talking about the war lasting for years.
That sort of thinking might keep anyone from hurrying."

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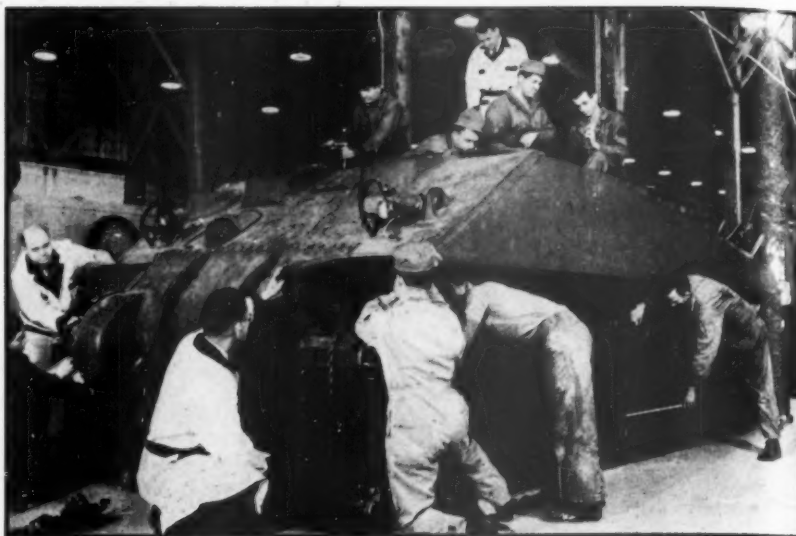
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TANK TOOLERS

As valuable in battle as the men who
 man the tanks will be the 200-odd
 soldiers now learning to repair, dis-

mantle, and reassemble tanks at the
 Chrysler Tank Arsenal. One crew of
 twelve soldiers and an instructor,
 working with hand tools, assembled a
 tank in eight days—on their first try.

15 miles. They also dodged two heavy
 jobs of timber clearing and rock blast-
 ing. Result: a crooked but passable truck
 road.

Some of the soldiers who built the
 highway are operating the transport
 trucks with the aid of Greyhound Bus
 and General Motors transport experts,
 while other troops and the contractors
 maintain the road. Truck drivers shuttle
 over familiar stretches of road between
 camps spaced 45 to 90 miles apart.

• **The Route**—The highway runs from
 the rail end, at Dawson Creek, north to
 Ft. Nelson, then westward, crossing the
 main range of the Rockies at Summit
 Lake Pass (elevation 4,212 ft., highest
 point on the route). Its next contact
 with the outside world is at Whitehorse,
 principal city of the Yukon, connected
 with seaboard Skagway through the
 narrow-gauge White Pass & Yukon R.R.

All the way, the highway skirts moun-
 tains previously considered impassable.
 For some distance west of Whitehorse,
 the road follows the old '98 gold rush
 trails, but it soon breaks out into un-
 mapped wilderness until, at Fairbanks,
 it meets the existing Richardson High-
 way to seaport Valdez. Extension of
 the route another 700 miles to Nome
 next summer is a possibility.

• **Weather Changed Plans**—Original
 plans called for the completion of a
 70-m.p.h. road. Early in August, how-
 ever, it became apparent that such a
 high-class job could not be finished be-
 fore the freeze. Hence a graveled 18-ft.
 road (much is 22 ft. and 24 ft.) was
 pushed through.

Every stream is now crossed by a
 bridge or a pile trestle—more than 200

major structures have been built from
 timber cut at the site, and piling, tim-
 bers, and machinery are on hand for
 quick replacements. There are some
 5,000 culverts for local drainage, and
 three permanent bridges (one the 1,850-
 ft. suspension bridge across the Peace
 River) are being built.

• **Machinery Pooled**—Contractors' con-
 struction equipment—all of it second-
 hand—was supplemented with units fur-
 nished by the government from aban-
 doned operations of the Civilian Con-
 servation Corps to make up a grand
 total of 5,000 pieces of road-building
 machinery. Some badly worn machinery
 added to difficulties, since no repair parts
 for either Army or contractors were re-
 ceived until late in October. Mean-
 while, the equipment was kept patched
 up by portable repair shops and liberal
 use of welding torches.

During road-building operations, both
 soldiers and contractors' workmen were
 housed in primitive camps, moving every
 few days. Electric generating sets were
 among the few modern touches. Recrea-
 tion was forgotten, and schedules called
 for two 11-hr. shifts seven days a week.

• **Field Rations Served**—Contractors,
 working on a cost-plus-fixed-fee basis,
 paid straight time only, but this was
 many times what the soldiers got for
 identical work. The Army men existed
 largely on ample but monotonous field
 rations, while the contractors fed their
 men somewhat better.

Snow removal is taken care of by
 a fleet of 90 big plows, including 40
 rotaries and 50 tractor-mounted V's,
 and by scores of smaller truck-mounted
 blades. The big tractor bulldozers, used

for smashing the trail through the forests and for preliminary grading, can also be used for snow clearing if necessary.

• **Postwar Vista**—Looking ahead, the highway opens up, after the war, a vast undeveloped area rich in natural resources including timber, copper, coal, oil, gold, several rare metals, and possibly commercially exploitable deposits of tin. Tourists already have an eye on the road. And, although four-fifths of the highway is in Canada, mutual interest is expected to result in some workable arrangement for joint control and maintenance.

Pottery Defrilled

Fewer designs, shapes, and decorations mark the 1943 dinnerware models. Services buy almost half the output.

Rosy prospects of the American pottery industry for 1943 were not dimmed this week by the fact that the 64th annual Glass and Pottery Exhibit in Pittsburgh—oldest trade market in the country—produced the fewest new designs and shapes in dinnerware since 1920.

• **Comfortable Freeze**—Barring further war stringencies, the industry anticipates a comfortable year, thanks to the elimination of imports from the competitive scene and to the volume of purchases by the armed forces. The jam of government and civilian orders has more or less frozen designs and shapes, because business is so good there is no need to strain for something new.

But if the exhibit betrayed a wartime pinch on pigments and a consequent reduction in the number and types of decalcomanias and decorations, one fact seemed clear to the exhibitors: They won't be limited, as are the British, to undecorated white ware.

• **Elsie Revived**—One new line of novelty pottery that caught the eye at the Pittsburgh show was that embodying the Elsie-the-Cow motif, an adaptation of the Borden Co.'s bovine symbol. Elsie's figure graces a variety of cooky jars, cream pitchers, toby jugs, pepper and salt shakers, and children's sets.

The war has placed on the industry added burdens—to supply the armed forces and the civilian customers who formerly purchased goods made in Japan and continental Europe. Imports from those pottery areas folded with the war. England, however, sent to America last year about the same weight of china ware as it did in 1941. This likely means a greater dollar value since English potters have sent a high quality of goods here.

• **Topped the Peak**—The American pottery industry hit a peak in 1941, when

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☆ Down in the Solomons — out on the high seas on merchantmen — in U. S. naval anti-aircraft gunmounts — Ampco bronzes for ordnance meet the critical needs of combat service.

Its rugged resistance to shock and impact, due to high compressive strength and excellent physical properties, make it desirable for use as parts in anti-aircraft gunmounts.

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Write on your letterhead for catalogue 22, describing this remarkable bronze.

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DEPARTMENT BW-1

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by regulating the flow of materials
which in turn can be economically
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the vitreous and semivitreous branches did a \$50,000,000 wholesale business; that volume was topped last year by 5% to 10%.

The potters' best customer is Uncle Sam, who is taking from 40% to 50% of the industry's production for the Army and Navy. A buyer of only vitrified dinnerware, the government is getting 60% to 70% of the output of the vitreous plants. About 35% of the semivitreous plants have converted to vitrified wares. Government orders have put the civilian trade behind the eight-ball. Many plants are from 60 to 120 days behind in filling domestic orders.

• **More Women**—The delight of having a market practically free of foreign competition and no serious trouble with supplies is offset by a labor shortage. The industry's peacetime labor force has been expanded 25% to 25,000 employees. The proportion of female employees — usually about one-third — has been increased about 12% to replace the men who have been drafted or have left for other work.

The wage question is another bogey. Two pay boosts since April, 1941, total more than 21%, and the OPA has permitted an increase of 5% in price ceilings to the semivitreous branch. As long



LONELY TRAIL

Throughout 17 eastern seaboard states, traffic almost vanished last week when OPA announced that gasoline ration books would be lifted from motorists for nonessential driving. Typical of many a main artery throughout the area was New York's busy 34th Street—an all but deserted highway after OPA got tough.



**Heated by TOCCO
to 2000° F.
in 115 SECONDS
for forging!**

At the push of a button, the electrical induction of a cool, compact TOCCO machine goes to work on the shank of airplane propeller blades. In 115 seconds, the 4½" diameter by 9¼" long tubular section heats to 2000° F., ready for upsetting.

That's typical of the SPEED of processing with TOCCO induction heat.

Versatile TOCCO units like the one shown are on the offensive all along the war production front ...blasting traditional schedules...saving valuable hours in hardening, annealing, heating and brazing operations. And the same standard units, with a simple change in work fixture, will cut costs and improve products for the post-war battle of competition.

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This Wood Comes Back Home To Work After Long Life Has Been Added

MANY LUMBER MILLS employ Wolmanized Lumber* on construction that is exposed to conditions conducive to decay—for log haul-ups, tramway supports and decking, conveyors, fuel bins and platforms. They cut their lumber to size, frame it ready for erection, and send it to a Wolmanizing plant for treatment. Then back to the mill it comes, prepared to give many years of service.

THAT'S CONVINCING evidence that the lumber producers think a great deal of this long-lived lumber.

WOLMANIZED LUMBER is ordinary wood that has been treated to make it highly resistant to decay and termite attack. Preservatives are driven deep into the wood by the vacuum-pressure method. "Fibre fixation" prevents their leaching out. Service records covering millions of feet, some of it in use over eighteen years, are evidence of its durability.

WARTIME STRUCTURES are being built of Wolmanized Lumber all over the world. The desirable properties of wood construction are retained—easy, fast erection, lightness, strength, resilience, good insulating properties. And long life is added, assuring low upkeep costs. Consider Wolmanized Lumber in your postwar planning. American Lumber & Treating Company, 1656 McCormick Building, Chicago, Illinois.

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WOLMANIZED LUMBER



as operations remain at capacity and wages are unchanged, the industry can make a profit under those prices. But now the National War Labor Board and OPA are confronted with union demands for additional increases.

• **Postwar Plan**—After the war, the foreign potters may recapture the 30% of the American trade they held previously, for there always will be some buyers of the cheap foreign wares made by cheap labor. But American designers already are talking about how to hold the American market through mass production of a standard set of dinnerware in fewer sizes and pieces.

Parts Needed

WPB increases quota of automotive repair items to keep old trucks and buses in running condition.

The supply of parts for automotive vehicles, particularly trucks, again appears to be in one of its periodic tightening-up phases. WPB has taken note of the situation by setting the 1943 heavy and medium truck parts production quota 25% above the 1941 volume.

• **Loads and Overloads**—The squeeze on truck parts evidently grows out of several factors. First, trucks are performing as never before, carrying capacity or near-capacity loads on all trips, under government regulations. Overloading, too, is common, developing even greater stresses.

Beyond that is the fact that need for transportation facilities has resulted in the use of many trucks of ancient vintage, some of them lifted almost from scrap piles, refurbished, and returned to the road. Renovation has provided a definite drain on parts supplies.

• **Engine Parts Scarce**—Requirements for old trucks fall precisely where the supply is lowest—on functional engine components made largely of scarce materials and high steel alloys. Gear and axle parts and others require alloy steels, which producers find most difficult to obtain, despite WPB allotments.

The system for replenishment of stocks, too, allows little time to meet shortage situations. Manufacturers report to the Automotive Branch of WPB when their stocks run down to a critical (90-day) level. The Automotive Branch then issues priorities high enough to make the necessary production possible. But by the time the application for relief is processed—and it's usually quickly—and by the time materials are obtained and fabricated, the parts supply is often close to bedrock.

• **Parts Makers Quit**—Complications also grow out of the fact that many parts makers are out of that business,

at least for the time being. This is particularly true of some of the automobile and truck companies, which found it inexpedient early last year to keep automotive departments functioning simply to turn out comparatively small banks of replacement parts. These producers, including most vehicle makers except the biggest ones, have closed down their replacement parts facilities and are depending on pre-1942 banks of supplies to meet present and forthcoming requirements. Normally these stocks can meet all calls, but here and there the quantities are running low, putting a greater burden than usual upon companies that manufacture exclusively for the jobber-retail trade.

Results of the parts shortage slowly are becoming evident. Some bus companies, notably urban lines which have had to bring hitherto discarded equipment back into service, are experiencing layoffs of their vehicles for indefinite periods while they scurry for parts. Some fleet freight haulers are having similar problems.

• **Prices Studied**—Meanwhile, OPA is planning changes in price regulations. Under consideration are proposals for two frameworks on prices, one for new parts and the second for used parts, not now covered. Used part prices would be based on new price lists, ranging from 55% of the manufacturer's suggested retail price for the unit when new up to the full price that prevailed for a rebuilt, repaired, and guaranteed part on Mar. 31, 1942.

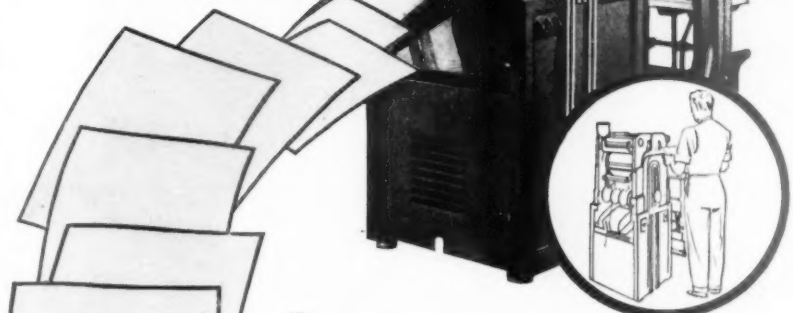
BRIDGES'S OWN PAPER

For several months, longshoreman Harry Bridges has had in mind a national medium for promulgation of his labor and social principles. So when his I.L.W.U. Dispatcher made its first appearance a couple of weeks ago, complete with an illustration by Rockwell Kent and a personal column by the longshore union leader, it was carefully appraised by the labor press, by employers, and by the newspaper fraternity.

An eight-page tabloid with several typographical features (including a front page index printed in red ink), it will be published fortnightly in San Francisco by the C.I.O. International Longshoremen's & Warehousemen's Union for national distribution.

Very obviously, it is Harry Bridges's paper. In addition to Harry's own column "On the Beam," the first issue carries a page headed "Citizenship for Harry Bridges" in which Leo Huberman extols the longshore leader's contribution to the war effort.

Editor of the Dispatcher is Morris Watson, for eight years international vice president of the C.I.O. American Newspaper Guild and, later, publicity writer for the C.I.O. Greater New York Industrial Union Council.



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FORM LETTERS
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If you want a few hundred or a few thousand copies of a form letter, have your secretary type it directly on a Davidson offset plate, add signature with pen and ink, and in five minutes it's ready to run. Out they come—clean, sharp impressions from first to last.

Or maybe you want to run from type or electrotypes. Or perhaps it's an advertising folder in colors—or an envelope job using rubber plates. That's all right. This *one* machine will handle them all—and only a Davidson can give you all this in *one* machine.

Here's the machine that is daily proving its worth in hundreds of industries, institutions, and U. S. Government departments. At home and abroad with our armed forces it's producing work of exceptional quality at remarkable savings.

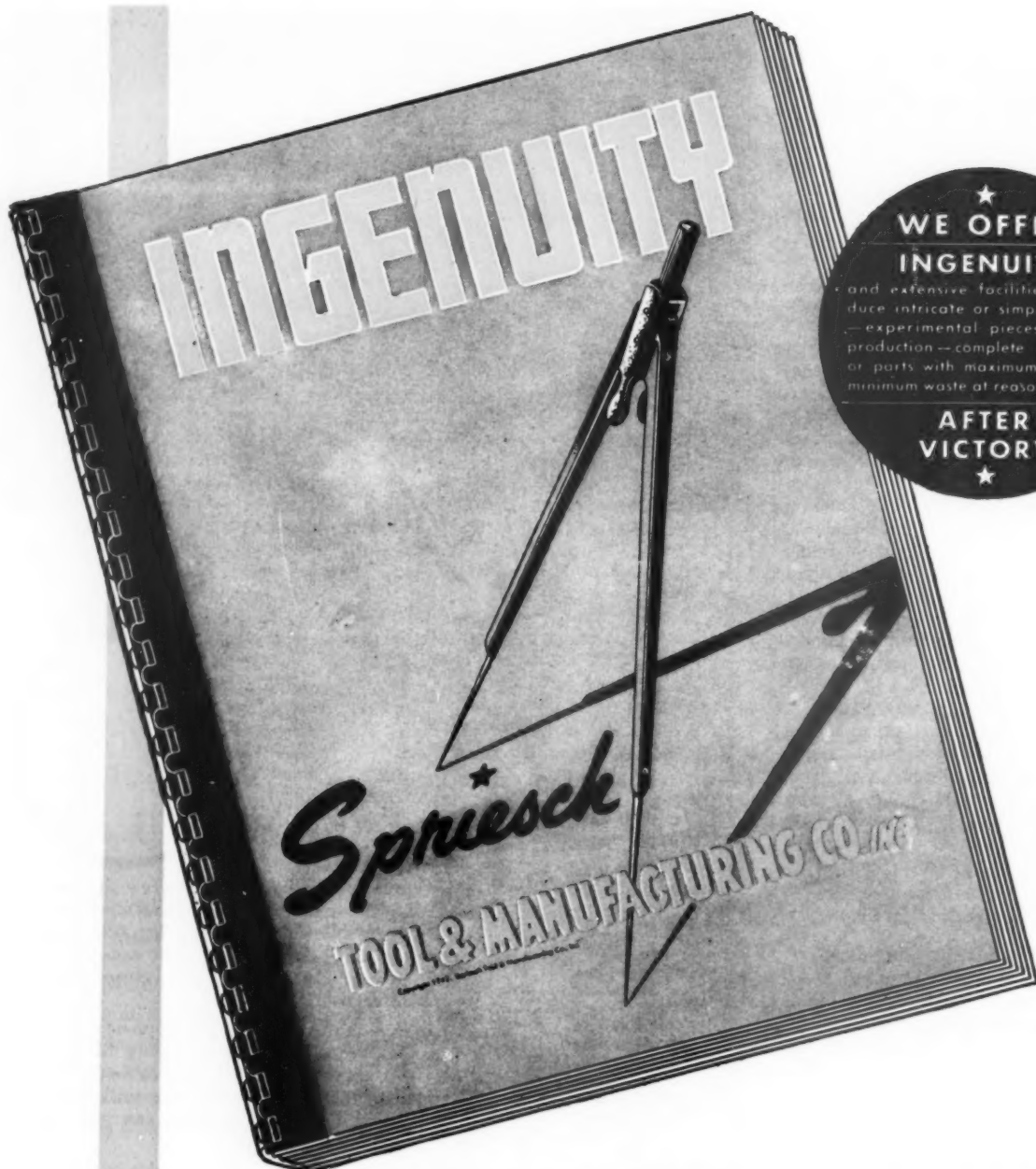
Priorities, of course, govern all sales, yet it may not be as difficult to own a Davidson as you think.

Get the Facts! This booklet gives you the complete story about the Davidson—anticipates your questions and answers them fully. Write for your copy—today.

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● Executives are invited to write for this informative 36-page brochure titled "Ingenuity." In it is illustrated and described our facilities and spirit... Please use your business letterhead. Joseph J. Cheney, President.

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ESTABLISHED 1923

TOOL & MANUFACTURING CO., Inc.
19 HOWARD STREET • BUFFALO, NEW YORK

THE WAR— AND BUSINESS ABROAD

Tangled Trade

South American export licenses temporarily clamped to ease backlogs. Shippers will be protected.

Relentlessly pushing toward Rostov, Russia caught and held the newspaper headlines this week.

The Balkans tensely followed Nazi maneuvering with Turkey for the first signs of (1) a break, or (2) tacit admission by Berlin that Germany is so exhausted she can no longer fill her trade contracts (BW—Jan. 9 '42, p. 52). And all the world watched northern Africa closely as Axis and United Nations troops sparred for time and jockeyed for the showdown battles that are inevitable in the next two months.

Spotlight on Washington

Actually, one of the week's most significant developments, as far as business is concerned, came out of Washington when export trade authorities moved vigorously to end the chaos into which foreign trade (except to Allied belligerents) has been plunged by the steady dwindling of the fleet available for "non-war" runs.

Almost no American exports or imports move except under the strict system of dual controls imposed by licensing of shipments and allocation of ship space. Principal exceptions come in the shipping section where Argentina, Portugal, and Spain still are comparatively independent in their determination of what cargoes they will carry in their own vessels.

Export Backlogs Grow

But the bulk of this country's free foreign trade today is with Latin America, and this is where trouble has developed. Export licenses have been granted for nearly a year without correlating them closely with available shipping space. As a result, export backlogs have accumulated to the point where currently available tonnage could not move them in less than six to ten months, even if no new licenses were granted. There is one case where the present tonnage of available shipping could not deliver backed up supplies for 14 months.

When Hector Lazo became director of the export section of the Board of Economic Warfare, he set out to correct this situation. An advisory council was formed from men in the trade who

Day and night, 3-mile-a-minute AIR EXPRESS is saving precious time here on the home front flying vital war supplies, to help keep the wheels of production turning at highest speed.

You do not need a priority to ship by AIR EXPRESS, but if you have war production shipments requiring priorities, they will be granted. Phone Railway Express Agency, AIR EXPRESS DIVISION, or any air line.



NOW IN ITS
16th YEAR

AIR EXPRESS

Division of RAILWAY EXPRESS



Today's Destination:
BATTLE FRONTS

Tomorrow's:
INDUSTRIAL U.S.A.

TENUAL ALUMINUM CASTINGS are proving their worth on far-flung battle fronts in planes . . . tanks . . . ships. And our castings will "come through" under all conditions because of our ability to meet the most rigid specifications of the armed service with speed and quantity production. This will be your guarantee of receiving quality sand and permanent mold aluminum castings when our shipping tags can again read: Destination U. S. A.

Illustration shows careful water pressure testing of an important aircraft aluminum casting

TENUAL

**FOR VICTORY
BUY
UNITED STATES
WAR
BONDS
AND
STAMPS**

THE National BRONZE & ALUMINUM FOUNDRY CO.
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QUALITY SAND AND PERMANENT MOLD ALUMINUM CASTINGS



ALUMINUM IN BRAZIL

While making a tour of United States war industries, Joao Alberto Lins de Barros, Brazil's wartime economic dictator, told New Yorkers that if his country could obtain the necessary machinery Brazil could produce 100,000,000 lb. of aluminum a year from rich bauxite deposits near Sao Paulo.

were invited to Washington to propose remedies and discuss those suggested by various Washington agencies. To these men, the exact facts of the situation were revealed.

Backed up export tonnage licenses to Bolivia, for example, were balanced against monthly shipping space available to Bolivian importers on ships bound down the West Coast of South America. It soon became plain to everyone concerned that it was foolish to go on this way. Even Latin American customers complained that much of what they had sought a year ago as "essential" was no longer of prime importance to them in the reduced scale on which it is necessary for everyone to operate now.

Help for Shippers

Here is what Washington aims to do in the scheme announced this week. Effective at once, BEW's Office of Exports refuses to consider—before Mar. 1—any new license applications (except in emergencies) for shipments to these seven countries where backlogs are most serious: Argentina, Bolivia, Chile, Colombia, Ecuador, Peru, and Venezuela. Meanwhile committees of government officials and business men in each of the countries will be asked to review the accumulated backlogs and choose which shipments they still consider of primary importance.

In cases where it is decided that to

cancel some of the old orders would cause unfair financial losses to shippers, Washington will protect the manufacturer probably by (1) helping to transfer the shipment to some other market where shipping space is more plentiful, (2) subsidizing the reconversion of the goods to a raw materials state, or (3) buying it outright if no other means of disposing of it can be found. Officials estimate that no more than 5% of the export backlogs will fall into this category.

Submarine Sinkings Up

Reluctant as Washington is to impose further restriction on the flow of supplies to friendly hemisphere neighbors, officials insist it is better than allowing the present chaotic arrangement to continue, particularly since there are no signs of improvement in the shipping situation. Submarine sinkings again are running near their wartime peak, and though the shipbuilding program may successfully produce 16,000,000 tons of new vessels this year, all of them will be needed to move troops and supplies.

These realistic officials reminded their advisory council that this country moved only a little more than 1,000,000 men overseas in 1942 and pointed out that probably not more than 2,000,000 can be moved in 1943 although 7,500,000 are under arms. This sobering logic put an end to any dreams of boosting our available tonnage for South America until Nazi submarines are put out of service or our production of ships runs far ahead of the present record breaking levels.

Tools Go South

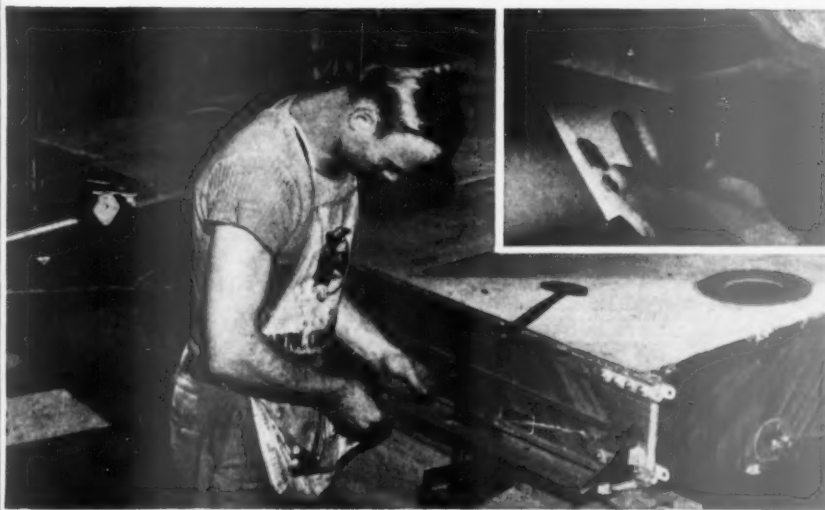
U.S. isn't transplanting idle factories to Latin America in toto, but sends machinery for "essential" plants.

The Board of Economic Warfare has moved to scotch three-month-old rumors that this country contemplates selling to Latin America large numbers of completely equipped but temporarily idle plants in the light industry field. The same rumors, which had placed the value of this machinery at no less than \$2,000,000,000 and the number of plants at about 500, have been causing as much embarrassment in Latin America as in the United States.

• **Shipping Bottleneck**—While the acute shipping shortage alone would kill any such big-scale project, the rumors undoubtedly grew out of the knowledge that almost all of the Latin American countries have appealed to the United States since the outbreak of war for help in supplying them with essential equip-

Tego Resin Film

is working in furniture factories



Plywood airplane wing nears completion (above). Tego Resin Film interleaved with wood veneers (right above) is hot pressed to plywood that is weatherproof, waterproof, fungusproof.

...to make AIRPLANES!

AMERICA needs production, and still more production, of plywood airplanes, gliders, torpedo and assault boats, prefabricated housing. Tego Resin Film may be your way into this huge, new field.

Tego Resin Film is a paper-thin, phenolic synthetic resin adhesive. Interlaced with wood veneers, then hot pressed, it produces plywood that, weight-for-weight, is stronger than steel. Tego-bonded plywood is weatherproof, waterproof, fungusproof. It is the accepted standard for aeronautical plywood meeting the

rigid U. S. Army and Navy Specifications.

The Resinous Products & Chemical Company introduced Tego Resin Film in 1935. This has been followed by many other synthetic resin adhesives, including UFORMITE CB-551 which combines the handling ease of older type cold-setting glues with the superior properties of synthetic resins.

If you are producing military or naval plywood products or sub-assemblies, write us today for full information on plywood-bonding adhesives or technical assistance.

Other Synthetic Resin Applications Developed By The Resinous Products & Chemical Company

PAINTS—Over fifteen years ago, AMBEROL synthetic resins made possible the development of fast drying enamels. Today, paints using AQUAPLEX resin emulsion bases are widely used for exterior painting and camouflage. Interior paints include the new resin emulsion "wallpaper" paints for civilian use.

DE-IONIZING WATER—AMBERLITE Ion Exchange resins produce huge quantities of De-ionized (salt-free) water. Used in America's new synthetic rubber industry, and in many other process industries, this

water has been found preferable in many ways to distilled water. Among other uses of AMBERLITE resins are the purification of chemicals and the recovery of metals from solutions.

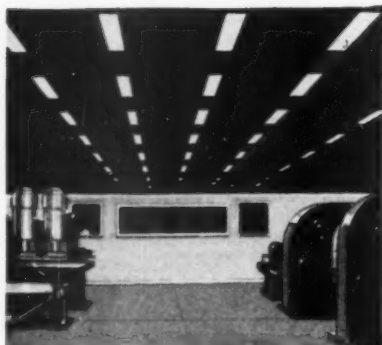
OTHER INTERESTING RESIN USES

—Water resistant cardboard for military packaging, mustard-gas resistant finishes, modifiers for natural and synthetic rubber, weatherproofing of Army tent cloth—these are but a few examples of the use of synthetic resins from the Resinous Products & Chemical Company.

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Lamp Insurance?

Yes, Sir, you can insure longer lamp life with G-E Starters because they give —

CONTROLLED STARTING

Controlled starting means the starter lights the lamp at the precisely right moment — not before, not after. This cuts to a minimum the amount of emission material used. And it is the excessive use of this material that shortens lamp life.

"MASTER NO BLINK" STARTER

Here's the starter that's recognized as 1942's outstanding contribution to better fluorescent lighting.

It is a manual reset starter that completely eliminates blinking and flickering, and saves you power, maintenance time and war vital materials.

This new G-E Starter instantly cuts out a dead lamp from the circuit. No current is used to keep the lamp locked out. No current is wasted trying to restart the dead lamp. No wasteful wear and tear is placed on the starter and ballast — all of which means a saving in current and vital materials.



THE WHOLE STORY'S IN THIS FOLDER

The full line of G-E Accessories and their proper use for best fluorescent lighting may be had by writing to General Electric Co., Section G131-102, Appliance and Merchandise Dept., Bridgeport, Conn.

GENERAL ELECTRIC

RATIONALISATION OF

Britain's Retail Delivery Services

Over 200 schemes save Fuel, Rubber and Labour

What one town alone, Glasgow, saves through its delivery pooling scheme (drapery trade).

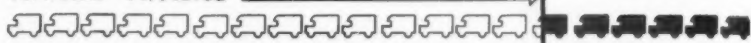
LABOUR — 57% saved



FUEL — 57% saved

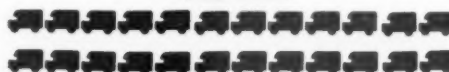


VEHICLES — 71% saved



Big stores' drastic cut in number of deliveries. An example from London. Maximum number of Deliveries per household (town area) each week.

PRE-WAR



NOW



Steadily tightening gasoline rations cause Americans to look to Britain's older experience with war restrictions for ways to lick our problems.

ment in order to keep their basic industries operating.

Washington, with an eye on hemisphere defense needs as well as an earnest desire to help United States manufacturers maintain their contact with old customers, has carefully studied these requests but only a relatively small proportion of them can now be filled.

• **Two Provisos**—It was in the midst of this growing inability to meet any but the most urgent needs of the Latin Americans that idle machinery in the United States came into the picture and, recently, has helped to make it possible to cover a few of Latin America's most urgent needs. In each case, however, even the permission for idle machinery to leave the country has been granted only when the project involved was judged (1) important to the United Nations war effort, or (2) an important aid to the war economy of the country to which it was sent.

In no case has BEW, or any other Washington agency, encouraged or initiated projects simply to absorb temporarily idle machines, even if they are generally believed to be obsolete. This is the point that BEW officials wished to make plain, both to United States business men and to puzzled Latin Americans.

• **Few Real Transplants**—While it has been possible to complete a good many

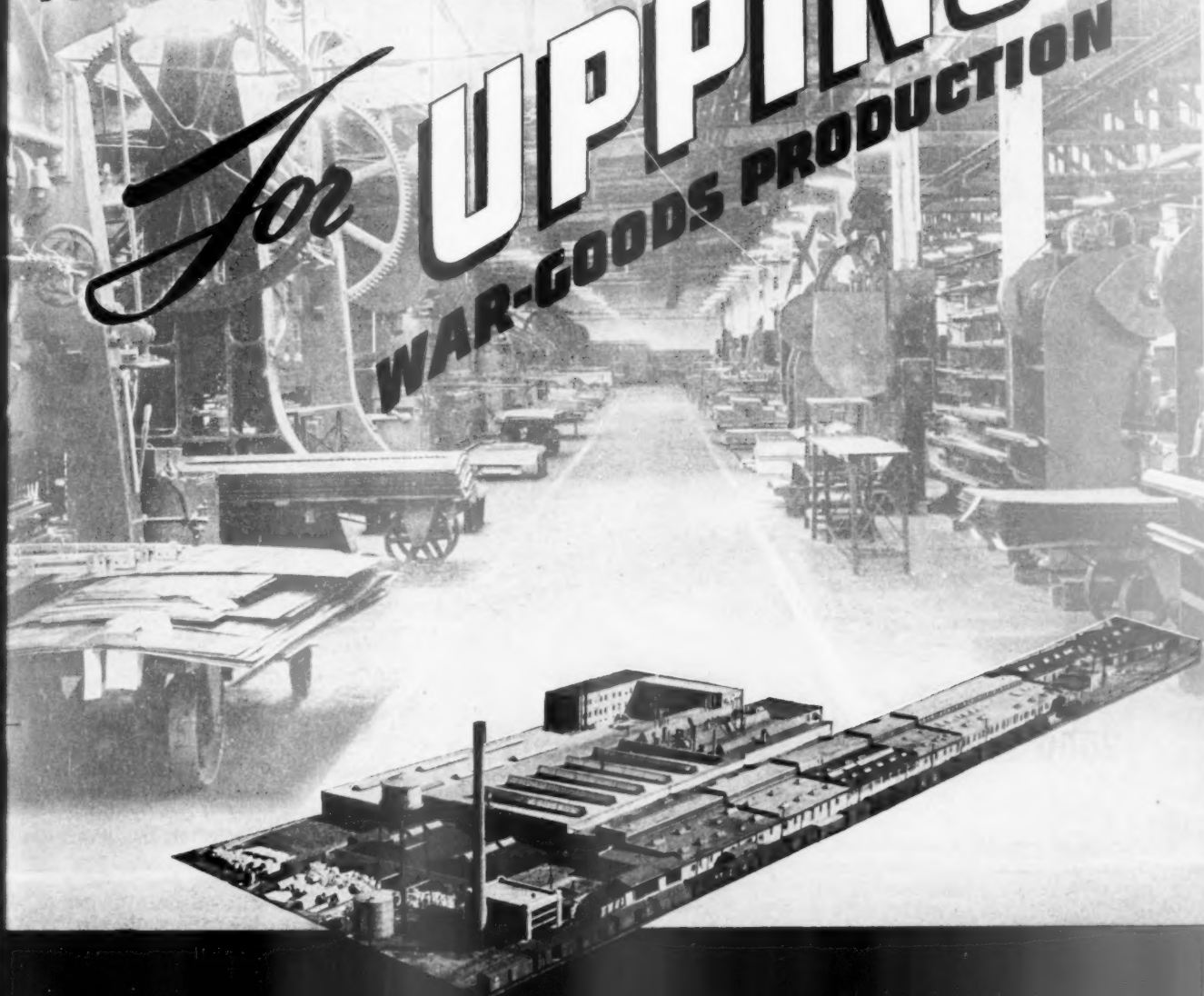
Latin American manufacturing plants only because of the availability of certain secondhand machines in idle United States plants, there are only a few very small plants that have been transplanted as a unit to new locations south of the Rio Grande.

A typical example of the way Washington has carried out its program is the \$1,000,000 powdered milk plant recently completed in Venezuela. When the plant (badly needed because Venezuela has little or no refrigeration and because, until the submarine campaign, the country imported all of its dried and evaporated milk) was first planned, the contractors appealed to the United States for \$165,000 worth of equipment, which contained various critical materials.

• **Typical Transactions**—This kind of deal—and there are several hundred cases in which the provision of certain idle machine units from the United States makes it possible to carry out a whole project—will continue on the restricted scale necessitated by the limited number of ships available on Latin American runs and by Washington's rigid criteria that the contemplated plants be essential to the war effort of the United Nations (by helping to produce strategic materials), or to the individual country by bolstering its economy or quickly reducing its dependence on some basic import.

**WAR-PROVED FACILITIES
YOU CAN DEPEND ON**

For **UPPING** **WAR-GOODS PRODUCTION**



- 1. Aircraft:** Capacity available in Aircraft Division for aluminum and steel parts and sub-assemblies.
- 2. Sheet Steel:** 42 years experience in fabricating steel—over two years on special war products.
- 3. Ships:** Experienced Lyon Engineers are working daily with architects and shipbuilders on pre-fabricated parts and furniture.

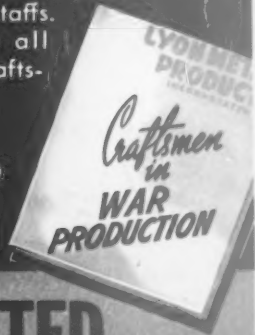
4. Sheet Metal Stampings: Facilities for handling wide range gauges, sizes and drawing operations; also annealing ovens. Experience on conversion of castings and forgings to sheet metal operations.

5. Know How: Lyon war contract experience dates from July, 1940. Every inquiry is given "specialist" handling. Experienced development, design and engineering staffs. Complete toolrooms in all plants. Send for book, "Craftsmen in War Production".

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LYON METAL PRODUCTS, INCORPORATED



2000 LB. MESSAGE TO THE JAP FLEET—

That ton of torpedo, darting toward a Jap cruiser, carries the American message — "this is *one* installment in our reckoning with Tokyo!"

Straight and true, it holds its near mile-a-minute course — the Navy's "Joe Louis punch" — a one-ton mechanism more intricate and finely balanced than a costly watch.

1300-plus parts do their perfectly coordinated job behind the war head of this American "tin fish." They can hold it at a pre-determined depth—get it back on course if it swerves or "porpoises"—dip it, if necessary, under a screening destroyer to find an aircraft carrier beyond—do everything, in fact, but think!

And this, despite the weeks or months on shipboard in varied climates, ex-

posed to sea-buffeting, vibration, temperature change and corrosion.

Yes, a torpedo is a marvel of engineering. And backing up its precision design are parts chosen with matching precision to do the job they must do perfectly.

Many of these parts... as those familiar with metals would expect... are made of MONEL. Tough, strong, rust proof... MONEL combines all the qualities of the ideal "sea-goin'" metal.

Today, MONEL serves the United Nations in a multitude of critical uses on the fronts of war. Tomorrow, it will resume its essential place in an industry at peace! The International Nickel Company, Inc., 67 Wall Street, New York, N. Y.

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Sheet...Strip...Rod...Tubing...Wire...Castings

CANADA

Vanishing Duties

Agreement on production and distribution of agricultural commodities may signal end of U. S.—Dominion barriers.

OTTAWA—Canadians see in last week's agreement to pool production and distribution of agricultural commodities of the United States and Canada (BW—Jan. 9'42, p59) the commencement of a continental system in which both farm and factory production of the two countries will be rationalized. In this they are looking to the postwar era when the two will exchange products that each is specially fitted to produce.

• **Lasting Rationalization**—The movement is not new in Canada. Canadian leaders have been waiting for evidence of the permanent abandonment of nationalistic fiscal policy at Washington. They think it has come now. Canadian statesmen of all major parties are now persuaded that the economic outlook below the border that resulted in the Smoot-Hawley tariff is permanently ended.

Canada's production of such basic commodities as coal and steel is definitely uneconomic. Their output has been increased substantially during the war and constitutes a large contribution to the Allied war effort, but it is felt here that when requirements return to normal it will serve better the economic interests of Canada to import these commodities from the United States while this country specializes in electric and alloy steel, the surplus of which United States industry could absorb without duties.

• **Preferences To Go**—Washington will find support in Ottawa for its demand for the abrogation of Empire tariff preferences set up under the Bennett agreements of 1932. And best informed opinion here is that Britain will make no great objection.

Initial result of the Wickard-Gardiner understanding on agricultural production and distribution is the introduction of additional rationing measures by Donald Gordon's Wartime Prices and Trade Board. Two weeks ago butter was rationed to consumers. A week ago processed milk was rationed to the trade. The next move will be the consumer rationing of meat.

As a result of the discussions, Canada plans to increase production and slaughter of livestock by the following amounts: hogs 28%, cattle 9%, and sheep 12%. Production of other farm



Things aren't as bad as this, but—

Wartime demands for accommodations at the Hotel Pennsylvania are making it increasingly difficult for us to take care of all our friends who "just drop in," without having made advance reservations. So . . .

For your own comfort and convenience, when you come to New York, won't you help us make the most efficient use of Hotel Pennsylvania facilities by reserv-

ing your rooms as far in advance as possible? We'll also appreciate the early cancellation of previously made reservations, should it be impossible for you to use them.

Your co-operation will enable us to provide the greatest number of people with the three wartime necessities for travelers today. (Those things are listed below. Read them.)

THREE WARTIME NECESSITIES FOR TRAVELERS



WONDERFUL MEALS

The kind of delicious, nutritious meals you look for, but can't always find, when you're away from home.



WONDERFUL SLEEP

Now, more than ever, you'll appreciate the kind of energy-restoring, nerve-relaxing sleep for which Hotel Pennsylvania beds are famous.



RESTFUL RELAXATION

The kind that helps clear away mental cobwebs. Dine and dance in the Café Rouge . . . enjoy a few moments in the Cocktail Lounge.

TO THE MEN IN THE ARMED SERVICES. A special discount on room rates to officers and men of the U. S. armed forces.

The Statler Hotel in New York
HOTEL
Pennsylvania

James H. McCabe, General Manager

Opposite Pennsylvania Station

ROOMS AS LOW AS \$3.85

YOUR DOLLARS ARE
URGENTLY NEEDED FOR U. S. WAR BONDS

There are GRINDLINS too, as well as Gremlins



As the fiendish little Gremlins dance on the wings of the airplane, and ride the radio beams,

just so, devilish little Grindlins tease and hamper the precision grinding machine operator.

"Your wheel is too soft, buddy," gleefully chirps the Grindlin. "Too soft, nix," says the voice of experience. "I true it more frequently because it has worn down to a smaller diameter."

"Ah, I've made your wheel glaze," he taunts. "True enough, you young imp" is the retort, "but I'll just increase the work speed, then watch it cut."

Think this over: Why be heckled by Grindlins while production lags. Norton engineering experience has met up with all their tricks that slow production and impair finish.

NORTON COMPANY • Worcester, Massachusetts

Behr-Manning Division—Troy, N. Y.

NORTON ABRASIVES

products will likewise be upped: milk 6%, condensed milk 27%, dried milk 41%, butter 15%, eggs 25%, flax 67%, coarse livestock feed 8%, and alfalfa 17%. There will be no increase in cheese output, which has reached its high water mark. Canada will send more bacon to England than the U. S., but both will share in shipments of dairy products and eggs.

• **Newsprint Pool** — Consumer-owned newsprint mills in Canada have won out in their objection to a profit pool scheme based on production capacity. The plan adopted is based directly on an allocation of production. When, in any calendar month, a manufacturer invoices to his customers or to other manufacturers a quantity of newsprint manufactured by him in excess of his established percentage of the total output of the industry, he will be required to remit a proportionate sum to a fund established by the Commodity Prices Stabilization Corporation, Ltd. When in any month a manufacturer invoices newsprint in an amount short of the percentage, he is to receive from the fund a corresponding sum.

Amounts that manufacturers are to remit or receive in consequence of allocation are to be fixed by the Administrator of WPTB. Payments are to commence Jan. 25 with the administrator fixing the percentages for production.

• **Store Hours**—After four months of effort to line up the Canadian trade, the retail division of WPTB has abandoned its plan to restrict retail store hours. The corner store is saved by a current ruling of Gordon's board. Retailers may open and close as they wish if their hours of business help conserve labor and electric energy. Objections were strong to fixed hours of business.

• **Employment Notice**—Ottawa's Selective Service regulations will be amended to provide that hirings for less than 30 days will not be subject to the seven-day notice required under the original enactment. Employers taking on workers will have the privilege of dismissing them without notice during the first month of their employment, and similarly, workers may quit without notice in the same period.

Cabinet council is now debating the question of whether men called up for the home defense army and rejected as medically unfit should be liable to compulsory service in industry.

• **Election Prospect**—Canadians are wondering whether their war effort will be interrupted by another wartime general election. Prime Minister Mackenzie King is anxious to attend the peace negotiations, realizes that an election a year from now might upset his government. Current developments suggest the possibility of an election in the spring to forestall popular reaction in the event of an early armistice.



You can use them . . . to make your war packaging more efficient . . . to help reduce damage in transit and thus curtail waste of materials, manpower, machinery and transportation facilities.

"How To Pack War Materials" was "authored" by seventeen manufacturers who found the answers to their new packaging problems in the H & D Package Laboratory. From their experiences you will get ideas which can be readily incorporated in your own corrugated shipping boxes, to save you time and money all along the line.

Published by H & D as a contribution to more efficient, more effective shipping, this new addition to "The Little Packaging Library" is yours for the asking. Send for FREE copies today.

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BETTER SEE **H & D** AUTHORITY ON PACKAGING



PACKAGING "TEXT-BOOKLETS" FREE

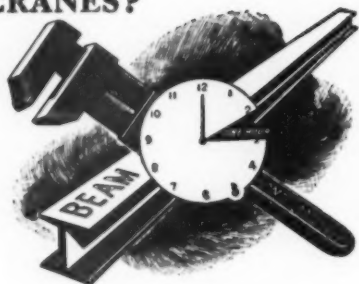
A little time spent in taking H & D's complete "refresher course" in packaging will pay big dividends. Full of helpful information on every phase of distribution, you'll find it a valuable reference throughout the year. Just ask for a complete set of Little Packaging Library Booklets.

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CRANES?



A war-time way to acquire them

DO YOU need jib or bridge cranes to carry your electric hoists or chain blocks? Would enlarging the working area of your hoists increase production?

Then consider this: With a wrench, an I-beam, an hour's time and a 'Budgit' Crane Assembly you can build your own cranes.

You need not drill a single hole. Not a minute of machine work is necessary. No skilled mechanic is required. Almost any workman can carry out the simple instructions that accompany every 'Budgit' Crane Assembly.

With the proper priority, we can assure early delivery and the crane can operate the day you receive it.

Under this method of acquiring a crane, transportation costs are low and the entire investment is not only profitable but also speeds up production for the country's all-out war effort.

Write for Bulletin 352 which contains full information of this quick, economical way to acquire jib or bridge cranes.



'BUDGIT' Crane Assemblies

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Show-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

HAMMER'S MODERN SUCCESSOR



PUT your tack-driving on a modern, accident-proof, waste-proof basis. Use the HANSCO T-1 One-Hand Tacker. First device of its kind to drive tacks! Drives into hard wood, thru thin metal or tin. Does a wide variety of tacking and fastening jobs—wherever glues or tacks are used. Drives Hansen T-head Tacks in four lengths, 3/16" to 1/2". Holds strip of 100 T-head Tacks. Drives fast as you grip. Investigate!

A. L. HANSEN MFG. CO. 2100 BAKENWOOD AVENUE CHICAGO, ILL.

MARKETING

Food Insurance

FDA plan for relieving "flash" shortages in the basic foodstuffs relies heavily on industry committees.

Faced with the possibility of having to establish huge government food stockpiles, initiate an unwieldy priority system, or lay its troubles before the national food trade associations and local food industry committees, the new Food Distribution Administration of the Agriculture Dept. chose the last course as its method of dealing with surprise local shortages in basic food commodities. Under the system, local food industry committees are being established in every state and important local area of population.

• **All Levels Represented**—Headed in every instance by a government man, generally the local representative of the Food Distribution Administration (who more than likely used to be the local Agricultural Marketing Administration

stamp-plan or food-purchasing agent), each industry committee will be composed of representative retailers (from independents, chains, and supermarkets), representative wholesalers, and food processors whose plants are located within the area.

As soon as a local shortage is reported, the committee investigates and reports within 24 hours whether the shortage is real or imagined; and if the former, why it exists. In addition, the committee tries to use its knowledge of local distribution conditions to correct the shortage on the scene. If this isn't possible, the shortage is reported to the state committee, which tries to iron it out. If the situation is so stubborn that the state group can't handle it, the matter is referred to FDA in Washington, which will go direct to the national trade association involved.

• **How It Works**—For example, if flour were short in some area FDA would appeal to the Millers National Federation office in Washington, asking the trade association to use its influence to see that flour is rushed into the shortage region from the closest point where a surplus exists. In the meantime, FDA

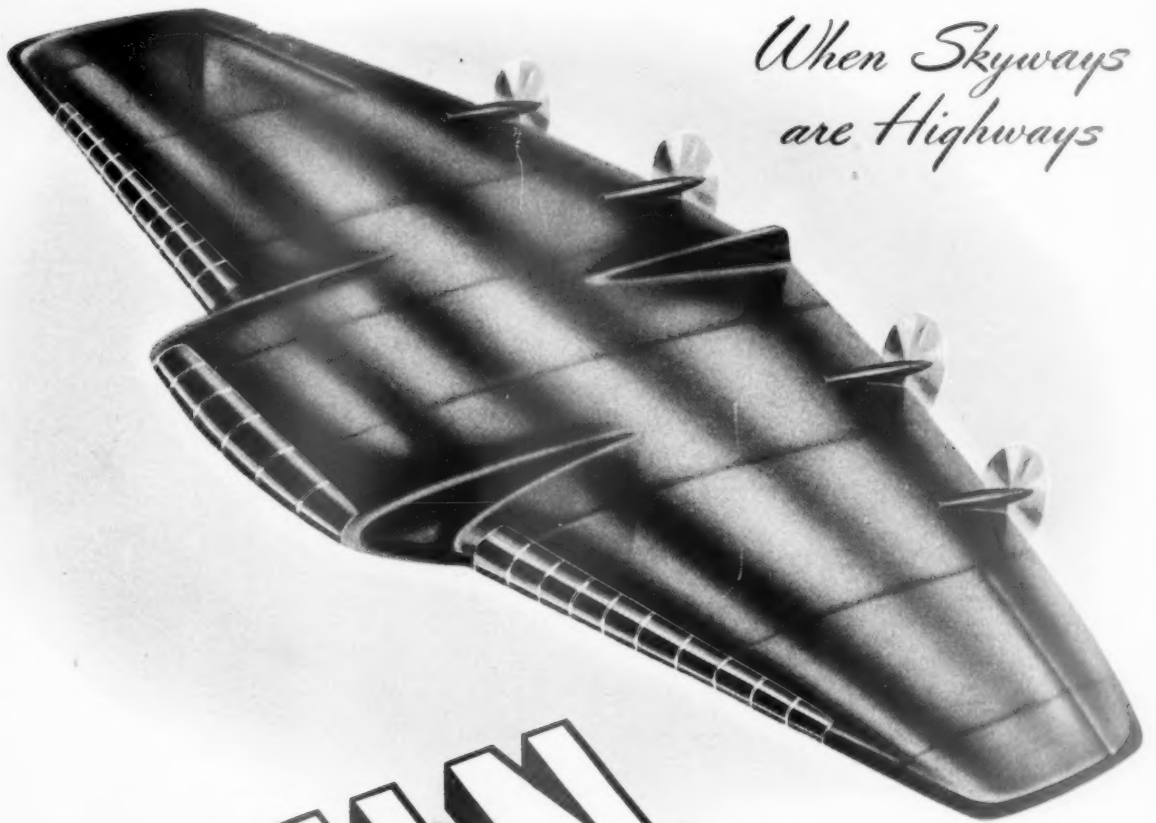


NYLON RESYNTHESIS

Back of the current drive for used nylon stockings is the need for supplementing du Pont's capacity to synthesize adipic acid and hexamethylene-diamine (the two chemicals from which nylon is polymerized) from "coal, air, and water." In a laboratory demonstration, the stockings are "chemically unraveled" by boiling them with a hydrolizer, which reduces them to a liquid state. When the

liquid is filtered, there results a solid precipitate containing adipic acid and a liquid filtrate containing diamine. Subsequent steps (right to left) are: (1) purifying the adipic acid; (2) distilling and crystallizing diamine; (3) mixing them; (4) heating the mix to polymerize it into ribbon of solid nylon; (5) breaking the ribbon into flakes; (6) melting and extruding the flakes and spinning the resultant fiber into spools of nylon yarn for parachutes, tow ropes, powder bags.

*When Skyways
are Highways*



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This huge freight-carrying airplane is a design foreseen by aviation engineers. Planes capable of carrying loads of one hundred tons or more, with speed and economy are predicted. Great strides have been made in the development of non-ferrous alloys that will later find new uses in such planes and in industry. Bohn is the only large scale operation in the world which engineers and fabricates

aluminum—magnesium—and brass products within the one organization. Hence Bohn can give unbiased advice as to which of these alloys may be most useful and economical for your specific purposes. Today our entire effort is on war materials. Remember the name Bohn—this organization is world-famous as a specialist in non-ferrous alloys. Later—we might be most useful to you and your future plans.



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Fastest Bomber in the World





Yours For Victory

Proudly we fly the coveted Army-Navy "E" flag with added star signifying continued compliance with requirements for over six months, presented to THE FULTON SYLPHON COMPANY for "...high achievement in the production of war materials."

The honor of this award is felt by every one of our employees. And it is a challenge to them to continue to earn this honor by adding service star after service star in the vital "battle of production."



Sylphon War Products include: Projectiles, Fuzes, Cartridge Cases; Parts for Depth Bombs, Mines, Torpedoes; Aircraft Engine Thermostats, Oil Cooler Thermostats, Pressure Regulating Valves; Parts for Super-charger Controls, Carburetor Controls, Fuel Injector Controls; Marine Controls for the Regulation of Heating, Ventilating, Fresh Water Heaters, Fuel Oil Heaters, Lubricating Oil Temperatures, Diesel Engines, De-superheaters, Steam Jet Ejector Condensers, Refrigerators; Engine Temperature Controls for Tanks, Combat Cars, Scout Cars, Transport Trucks; Industrial Controls for the Processing of Vital War Materials.

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would have a chance to work out a more permanent plan for supplying the shortage area.

Agriculture officials say the plan already has worked on meats. In New Mexico, a certain war area, whose population has mushroomed in recent months, suddenly found that nearby suppliers could provide no meat. The situation was referred to the American Meat Institute, which worked out a plan whereby this war area gets a share proportionate to its population.

• **WPB Had Plans**—Just before food control was transferred to agriculture, WPB was working on an order that would have given priorities to institutional feeding, particularly plant canteens, in new centers of war population. New plant cafeterias, for example, were finding it difficult to get supplies of foods under WPB restrictions, because suppliers in the area only had so much to dole out.

For the present, Agriculture has abandoned the priority plan as unwieldy. For example, the granting of priorities to a plant canteen may only result in draining off all the supplies available to others in the community. However, FDA men admit that this is merely an experiment in industry self-help, and that a priority plan may have to be established if the present one doesn't work.

• **Only a Palliative**—Also FDA men admit that the present plan is only a palliative. For example, where there is a nation-wide shortage of a given food, say butter, this plan can operate only to distribute the shortage as evenly as possible all over the country, pending the institution of formal rationing.

However, there might be many situations where this type of treatment can iron out a situation permanently. For example, assume that the committee finds that an inequity in a price-ceiling structure contributes to a food shortage in a given area. This is reported to FDA, which takes up the matter with OPA.

• **Behind the Scenes**—Aside from announcing the new local committee setup, FDA also is working on its new organization and personnel with which it plans to run the food processing and distributing industries for the duration. As its first step, it took over the whole WPB food division as of midnight, Jan. 10. In addition, FDA took over the fats and oils section of WPB's chemical division, which means that, in future, basic allocations of fats and oils for all purposes will be made by the Agriculture Dept. The part allocated for industrial use will be given to WPB for redistribution (BW—Dec.12'42,p16).

FDA's taking over the WPB food division does not mean that all the WPB men will be kept, or that the same organization will be maintained in the future. FDA Chief Roy Hendrick-

son has his own ideas on personnel and organization, and some WPB food heads are slated to roll. Although the Agriculture Dept. has relented on its dollar-a-year ban enough to permit such men from the food industry to serve in a consultative capacity, FDA will have a full-salaried employee in charge of every operating unit.

Wine's Boost

Coffee shortage causes a trend toward table wines. Vintners get ready for a new place in the sun.

Absence of the second cup of coffee may bring new prosperity to domestic producers of red table wines. California vintners figure these wines may even be reinstated as the leader, a rank they held before prohibition.

• **Trend Already Evident**—While demand for white table wines and for appetizer and dessert wines has boomed (BW—Sep.9'42,p46), red wine producers—excluding, of course, makers of burgundies, clarets, cabernets, zinfandels, etc., sold in quality brackets—have stood on the edge of the scene. Some actually have been in financial doldrums. They have cashed in on only a relatively small percentage of the nearly 70,000,000 gal. of increased wine sales in 1941 over 1932.

With almost all mealtime beverages rationed or hard to get, recent industry surveys show the public already is turning to wine. Demand already is being reflected in increased prices to grape growers.

• **No Shortage Seen**—As many industry leaders see it, this is the first time since before prohibition that the producer of table wine has had an opportunity to get a fair return on his investment. They are even saying privately that the future of the domestic wine industry from all standpoints (growers, producers, and retailers), in terms of gallonage and dollars, may have its foundation on table wine as it does in all other wine-producing countries.

Producers feel they'll be able to meet a sharp trend to wine, if and when it does materialize. Stocks of table wine are much larger than of any other type, they report.

RAISIN PROGRAM UPHELD

Looking ahead to a time when orderly disposal of crop surpluses may again become a tough problem, marketing specialists in the farm field will study the U. S. Supreme Court decision in the "California raisin case" which, in effect, upholds constitutionality of the state's pioneer Agricultural Market-

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MAGDRAULIC electric brakes are getting 'the works' on widespread fronts . . . scorching and freezing . . . through hub-deep mud, over hard rock-littered terrain . . . operational demands that would tear the guts out of an inferior brake.

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• On the war-production front at home Magdraulics are doing their share toward production speedup. The remarkable torque developed within the brake itself is being utilized to step up the efficiency and capacity of industrial machinery.

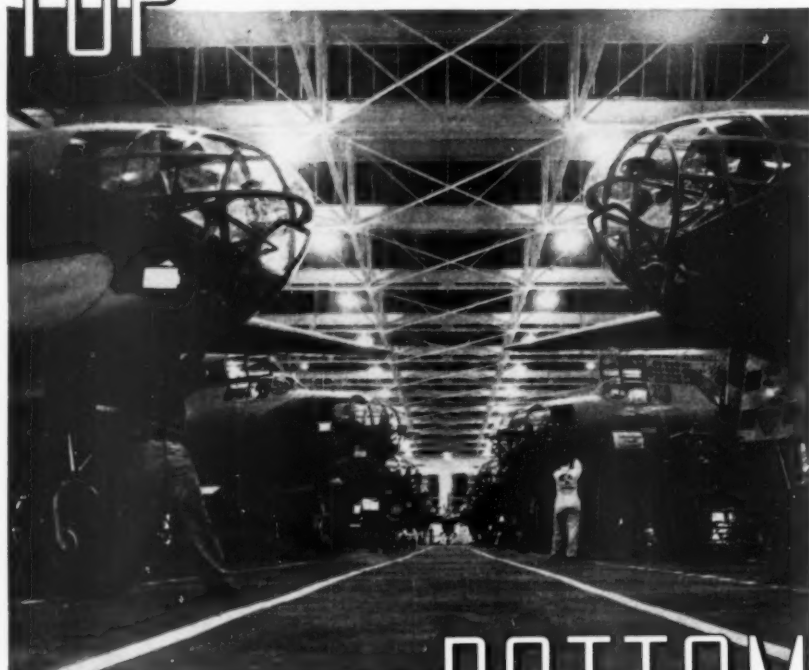
• The Magdraulic Electric Brake is a compact, self-contained, streamlined unit. Simple in design and operating principle—very easy to service. Available in several sizes, for automotive vehicles as well as industrial machinery.

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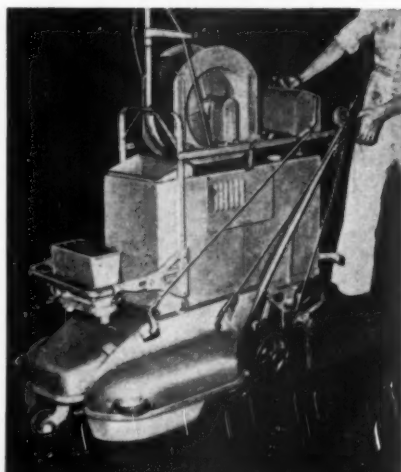
And rightly so, considering the extent to which *worker safety* depends on the maintenance of clean floors . . . on the speedy removal of hazardous oil and grease . . . and considering the *extraordinary speed* of a *Finnell Scrubber-Rinser-Drier*. This complete cleaning unit in the largest size has a capacity of 8,750 sq. ft. of floor per hour! Best of all, it requires but one operator for the scrubbing, rinsing, and drying operations . . . saves man-power for war-power.

Available in a wide range of models and sizes . . . each designed to meet specific needs. For literature, consultation, or free floor survey, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3801 East Street, Elkhart, Indiana.

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FINNELL SYSTEM, INC.

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ing Control Act. The case involved a raisin marketing program to curtail sales by producers and control supplies so as to "stabilize" the industry—adopted by California raisin growers in 1940.

In upholding the program, the court's unanimous decision implied that states have broad constitutional authority to supervise industry, that such power may be used even though it has strong effects on interstate commerce (even if it results in price increases on a product). Only reservation is that such power must not conflict with laws passed by Congress and must not discriminate against interstate commerce. Since no federal regulation directly governs raisins, the California program has no conflict with federal authority, the court decided.

WPB Whips Cream

Because of shortages in vegetable oils, a dairy drops one experiment as housewives make another.

When WPB slapped a 19% ceiling on the butterfat content of cream (BW—Dec. 5'42, p43), many producers and consumers of whipped cream delicacies thought they were beaten. Then some dairies began whipping up substitutes—an experiment that was as brilliant as it was brief. Consider the case of Bowman Dairy Co., Chicago.

• **Oil Trouble Appears**—Taking a page from the bakers' recipe book, Bowman obtained rights to produce and sell Devonshire topping, a blend of "legal" cream and vegetable oils beaten to shaving lather consistency. Results of the experiment were surprising. Restaurants, and even bakeries, began hanging orders on the dairy's hook at a comfortable rate.

But WPB, back in the picture faster than a Mack Sennett comedian could hurl a whipped cream pie, refused to allot Bowman more than 6,000 lb. of oil per quarter. Since the company had no quota based on previous consumption and since 6,000 lb. had been whipped up in one month, Bowman had no choice but to put the recipe back on the shelf where it had lain for years.

• **Coffee Cream Whips**—While Devonshire thus was flashing in and out of the field, dairies whipped up another idea to stiffen cream sales which are threatened also by the coffee shortage. Likewise an old idea, known to many thrifty housewives, dairies are advising that 19% cream can be beaten stiff if cream, bowl, and beater are chilled for two hours before whipping. In producing "legal" whipped cream, however, the cook must not be too industrious with the beater. She may wind up with butter.

Take a Look at This
(Actual Size)

This cord tip body is molded in two halves, each .385" long and .053" thick, with minimum tolerances checked at 63 points—9,088 pieces produced to the pound. Note the two holes in one half—diameters .045" \pm .001" and .062" \pm .001". Quite a molding feat!

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WITH a thickness of just over 1/20" to each half—no finishing necessary—this cord tip body is a precision part that shows how custom molders can work in almost infinitesimal dimensions and close tolerances.

They are equally at home molding large parts measured in feet and weighing over a pound.

The range of parts that custom molders are turning out today from plastics—by injection, compression, transfer or extrusion—is proving of tremendous help to manufacturers in the war emergency. If you need a part or a complete product, chances are it can be molded from plastics.

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1. Tell us what qualities you want in the part—impact strength; resistance to solvents, acids, water; light transmission; dielectric strength, etc. We select the plastic to give desired results.
2. We put you in touch with the available custom molders equipped to mold the piece.
3. The custom molder gives you a quotation.
4. We work with the custom molder in furnishing the formulation of the selected Lumarith Plastic that suits all factors of the production technique.

Inquiries invited.

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THE LOST BATTALION

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Likewise your office clerks, equipped with the most modern typewriters, accounting machines, filing devices are a lost battalion unless you give them the most efficient *Parsons Papers* to use in their daily work.

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WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Food Price Ceilings

Steps toward the simplification of the retail food price structure (BW—Jan. 2'43, p7) have been taken by OPA with the issuance of new formulas for determining maximum retail prices on 14 different items. These take the form of maximum markups permitted to stores of varying sizes. The foods affected are bananas, cheese, butter, fresh citrus fruits, poultry, coffee, canned fish, cooking and salad oils, shortening, corn meal, canned citrus fruits and juices, evaporated and condensed milk, maple and cane sirup, and flour and flour mixes. (Amendment 1 to Regulation 268, Amendment 7 to Regulation 238.)

Fats and Oils

WPB has further amended Order M-71 in order to help margarine producers get their full 1943 quota (page 20) of 180% of the fats and oils that they used in the base period (BW—Jan. 9'43, p44). The new amendment prohibits use of any one of 18 listed fats and oils in the manufacture of various inedible products.

Tin

In order to achieve a saving of roughly 25% in tin consumption in 1943 over 1942, WPB has completely revised its tin conservation order. Chief saving will be realized by cutting the maximum amount of tin in solder from 30% to 20%. The new limit is based on experience acquired in the use of low tin content solders during 1942, in which such solders, with the addition of small percentages of silver and other elements, have proved successful for practically every important use. Further savings will come from elimination of exceptions to quota restrictions previously granted in some cases, and from the way in which the new order is written, listing certain specific permitted uses and imposing a blanket prohibition on all others. (Order M-43, as amended.)

Paper

WPB's paper conservation program, inaugurated with conservation orders affecting magazines and newspapers (BW—Jan. 9'43, p44), has been extended by three new orders.

Book publishers are limited in 1943 to 90% of the tonnage of paper that they used last year. (Order L-245.)

Commercial printers in any quarter of 1943 are limited to 22½% of 1941 consumption, or to 90% of consumption in the corresponding quarter of 1941. In no case may total 1943 consumption exceed 90% of 1941. Public printing is exempt. (Order L-241.)

Converters (defined as any person using paper, pulp, or paperboard to make any item listed in the order) are curtailed according to two lists of products—items in

list A get from 50% to 110% of 1942 consumption; items in list B, including coasters, doilies, poker chips, and venetian blinds, get none. (Order M-241-a.)

Gas for Salesmen

Formal provisions embodying the previously announced increase in gas allowance to traveling salesmen of essential materials (BW—Dec. 12'42, p72; Dec. 26'42, p8) have been issued by OPA. Chief item is that additional gas will not be available to salesmen within the eastern gas shortage area. (Amendment 9 to Ration Order 50.)

Cellophane

Use of cellophane for wrapping cigarettes and other tobacco products in 1943 has been cut 10% below 1942 consumption. This was the outstanding change embodied in a revised order covering the use of cellulose film, just issued by WPB. (Order L-20, as amended.)

Farm Machinery

Secondhand farm machinery of five critical types has been placed under price control by OPA. The machines covered are tractors (except crawler tractors), combines, corn pickers, corn binders, and motor or tractor operated hay balers. (Amendment 3 to Regulation 133.)

Printing Machinery

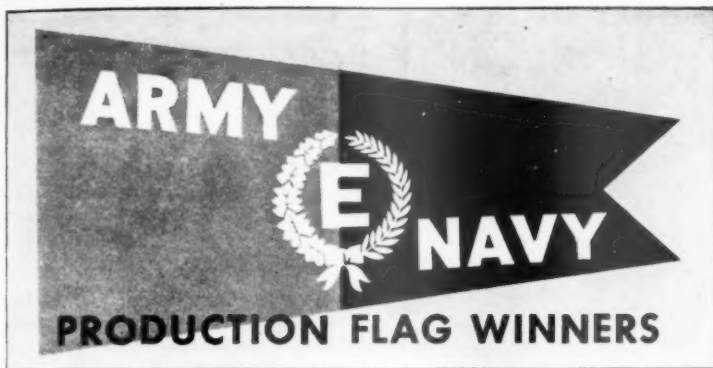
Production of all graphic arts (printing) machinery is banned, effective Jan. 30, except for use of the armed forces outside continental United States or on shipboard. Replacement parts may be made up to 120% of the dollar value produced in 1941, and all orders for replacement parts may be treated as if they bore AA-1 priority ratings. (Order L-226.)

Petroleum Industry

Authority to "extend, amend, modify, or revoke" any order in the M-68 series has been delegated by WPB to the Petroleum Administrator for War. Conservation orders of this series control the use of materials by the petroleum industry. First action taken by PAW under the authorization was Petroleum Administration Order 2, which defines permissible well spacing patterns for Illinois and portions of Indiana and Kentucky. The order includes, without change, all of the provisions of the old Order M-68-5, and will remain in effect until Feb. 1, 1943.

Storage Batteries

Replacement storage batteries for automotive vehicles may be produced in 1943 at 100% of the 1941 rate, as compared with 90% in the last half of 1942. However, in order to avoid seasonal employment peaks,



Allied Chemical Dye Corp. Philadelphia, Pa.	Ford Motor Co. Dearborn, Mich.	Pitney-Bowes Postage Meter Co. Stamford, Conn.
American Seating Co. Grand Rapids, Mich.	Formica Insulation Co. Cincinnati, O.	Portland Forge & Foundry Co. Portland, Ind.
Anderson Brass Works, Inc. Birmingham, Ala.	General Motors Corp. Rochester, N. Y.	Powers & Co. (Two plants)
Arter Grinding Machine Co. Worcester, Mass.	General Power, Inc. Quapaw, Okla.	Revere Copper & Brass, Inc. Detroit, Mich.
Atlantic Products Corp. Trenton, N. J.	Goddard & Goddard Co., Inc. Detroit, Mich.	Rohm & Haas Co. Bristol, Pa.
The Bamberger Reinthal Co. Cleveland, O.	George Gorton Machine Co. Racine, Wis.	Sanderson & Porter Joliet, Ill.
The Bethlehem Silk Co. Bethlehem, Pa.	Hercules Powder Co. (Two plants)	Schwitzer & Cummins Co. Indianapolis, Ind.
The Black & Decker Mfg. Co. Towson, Md.	Holabird & Root Marion, O.	Servel, Inc. Evansville, Ind.
Boston Gear Works North Quincy, Mass.	The Hoover Co. North Canton, O.	Sharpe & Dohme, Inc. (Two plants)
The Brewster Co. Shreveport, La.	The Hunkin-Conkey Con- struction Co. Marion, O.	Tokheim Oil Tank & Pump Co. Fort Wayne, Ind.
Bridgeport Fabrics, Inc. (Two plants)	International Harvester Co. St. Paul, Minn.	United Drill & Tool Corp. Detroit, Mich.
Butler Mfg. Co. Kansas City, Mo.	International Register Co. Chicago, Ill.	United States Rubber Co. Mishawaka, Ind.
Continental Roll & Steel Foundry Co. Coraopolis, Pa.	Eli Lilly & Co. Indianapolis, Ind.	Vard, Inc. Pasadena, Calif.
Corning Glass Works Corning, N. Y.	Merck & Co., Inc. Rahway, N. J.	Vitale Fireworks Mfg. Co. New Castle, Pa.
Cowen-Norton Construction Co. Norman, Okla.	Michigan Seamless Tube Co. South Lyon, Mich.	Walworth Co. South Boston, Mass.
Ehrhardt Tool & Machine Co. St. Louis, Mo.	The Morley Co. Portsmouth, N. H.	Wauregan-Quinebaug Mills, Inc. Wauregan, Conn.
The Joseph N. Eisendrath Co. Marinette, Wis.	National Carbon Co., Inc. Bennington, Vt.	Weaver Mfg. Co. Springfield, Ill.
The Electronic Laboratories Indianapolis, Ind.	National Machine Products Co. Detroit, Mich.	Webster-Brinkley Co. Seattle, Wash.
Equinox Mills Anderson, S. C.	W. C. Norris, Manufacturer, Inc. Tulsa, Okla.	West Construction Co. Kenai Peninsula, Alaska
Fairchild Engine & Airplane Corp. Hagerstown, Md.	Pacolet Mfg. Co. New Holland, Ga.	Andrew Weston Co., Inc. Montauk Point, N. Y.
The Felters Co., Inc. Millbury, Mass.	The Perfection Steel Body Co. Galion, O.	Willys-Overland Motors, Inc. Toledo, O.
Ford, Bacon & Davis, Inc. Jacksonville, Ark.		Zenith Dredge Co. Duluth, Minn.

(Earlier winners of the Army-Navy award for excellence in production will be found in previous issues of Business Week.)

specific quarterly limits are set. (Order L-180, as amended.)

A flexible method of determining quotas for production of hearing aid batteries is provided by Order L-71, as amended, and certain additional restrictions are imposed which will result in an estimated saving of 1,000 tons of zinc.

Gardening Tools

Manufacture of gardening tools has been put under limitation and simplification regulations by WPB, effective Apr. 8. Use of alloy steel is prohibited, and the number of

permissible sizes and styles of tools is reduced from 855 to 158. The restrictions are embodied in Schedule V to Order L-157, issued last July, which permitted the Director General for Operations to issue such regulations for any type of hand tool.

Container Closures

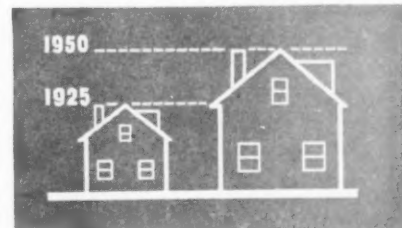
Schedules for 1943 use of tinplate, terneplate, blackplate, and rubber caps and closures for glass containers for food products are contained in Order M-104, as amended. The last previous amendment of the order provided similar schedules for use

POST-WAR HOUSING

Greater than the 1925 boom

Leading economists, government research agencies and large companies now drawing up postwar plans say that—for the decade following Victory—U. S. may build as many as 1,500,000 new homes per year . . . Comparison: Best year in building history, 1925, produced 937,000 new housing units—so this prediction looks forward to 10 years that should be 60% better than the 1925 boom.

Reasons are twofold: (1) tremendous backlog of demand being built up by wartime restrictions on



housing; (2) emergence of engineered housing, which produces better homes for less money.

Engineered housing

Outstanding example of engineered housing is Homasote Company's Precision-Built System of Prefabrication. This is decentralized prefabrication developed over a period of seven years—and at a research cost of over \$300,000 . . . Note word "decentralized"—Homasote avoids uneconomical transportation costs by franchising local prefabricators to use its system. Thus it works, with and for, not against, the established local factors in building . . . Second advantage of Homasote system is flexibility. It builds all sizes and styles of homes—



a four-room war worker's bungalow or a 20-room mansion—and every Homasote Home may be demountable (providing movability if neighborhood deteriorates and expansibility if family grows) . . . Proved in \$6,000,000 worth of private homes and \$24,000,000 worth of government war housing, Homasote Precision-Built Construction will—after present emergency—open up new markets: low-cost housing, employee housing, realty developments in all price classes, etc.

For more details, write

HOMASOTE COMPANY, Trenton, New Jersey

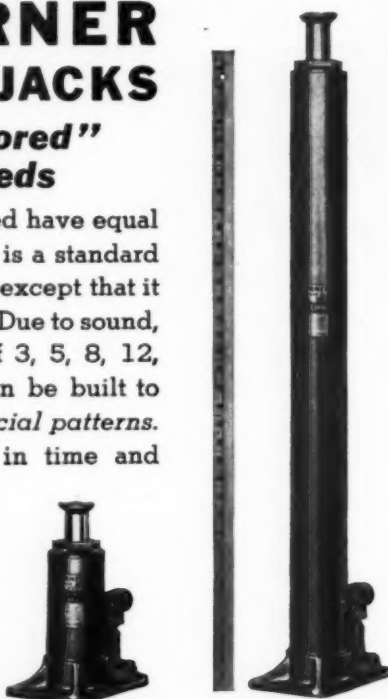
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**are easily "tailored"
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Both the H-W Jacks illustrated have equal capacity. The one at the left is a standard model, the other is identical except that it is made to a special height... Due to sound, basic design—H-W Jacks of 3, 5, 8, 12, 20 and 30 tons capacity can be built to *special heights without special patterns*. This means a big savings in time and money to factories producing war orders. Great on jobs involving lifting, pressing, bending, etc. For details, consult your nearest industrial supply distributor, or write us.



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THIS WOOD FILING EQUIPMENT WILL GIVE VERY GOOD SERVICE

Globe-Wernicke wood filing equipment will give long, satisfactory service and fully meets wartime requirements for efficiency.

Let us help solve your filing problems. Consult your local Globe-Wernicke dealer . . . or write direct to us for more information.



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"Defender" all-wood files are available in 2, 3 and 4-drawer letter and legal sizes . . . furnished in beautiful imitation walnut or attractive dark green finishes.



"RECRUIT" CARD INDEX CABINETS

These sturdily built wood card index cabinets are furnished in one and two-drawer units . . . for 3x5", 4x6" and 5x8" cards. Ideal for card index filing. Finished in attractive medium dark green.

★ BUY MORE WAR BONDS ★

The Globe-Wernicke Co. . . CINCINNATI, O.

in packing beverages, health supplies, chemicals, and household and industrial products (BW—Jan. 9'43, p50).

Tea Balls

WPB has limited output of tea balls to two approved sizes against more than a dozen now being produced. The two approved sizes are 200 and 250 balls to the pound, comparing with a present range of 150 to 300. (Order M-111, as amended.)

Export Prices

Manufacturers applying to the Board of Economic Warfare for export licenses, who formerly had to file detailed price explanations, may now file their prices with OPA's office of export-import price control, instead. The price information question on BEW's application form may then be answered, "Filed, OPA."

Other Priority Actions

The list of civilian products for which use of thermoplastics is prohibited is revised by Order M-154, as amended . . . Order L-196, as amended, prohibits the export of used construction machinery . . . Production of floor sanding, finishing, and maintenance machines after March 15 is prohibited, and restrictions on their sale, rental, or transfer are imposed by Order L-222 . . . Continued limited production during 1943 of repair parts (including needles) for domestic sewing machines is provided in Order L-98, as amended . . . Packers', wholesalers', and industrial users' quotas of cloves and ginger have been raised, and cinnamon has been cut, by Supplementary Order M-127-b, as amended. . . All alkanolamines are put under direct allocation control by Order M-275. . . The amount of ethyl alcohol that may be used in rubbing alcohol compounds in 1943 is limited to 15% of the amount used in the period July 1, 1940, through June 30, 1941, by Order M-30, as amended. . . Output of 500 semitrailer petroleum tanks, in addition to the 300 allowed in December (BW—Dec. 19'42, p58), is provided for by Order L-1-g, as amended.

Other Price Actions

Amendment 5 to Revised Schedule 2 fixes a maximum base price of 15¢ a lb. for all secondary aluminum ingot, with certain specific minor exemptions . . . For the convenience of the trade, OPA has published a list of dollar-and-cents warehouse prices for jobbers, dealers, and distributors handling iron and steel products for resale. . . Regulation 298 establishes ceiling prices for all rotenone products from the imported root to finished insecticides, resulting in an average cut of 5% at the retail level . . . Ceiling prices on imported natural resins are set up by Regulation 297 . . . Amendment 2 to Regulation 271 sets a ceiling price for country shippers of \$3.65 per hundred pounds on new potatoes grown in certain counties of Texas and Florida . . . Amendment 4 to Regulation 262 brings pretzels under its provisions . . . Shell eggs purchased solely for hatching purposes are exempted from price control by Amendment 5 to Regulation 280.

PRODUCTION

Keys Go to War

Keys yield 4,000,000 lb. of metal, and new plant helps Navy get cupronickel needed for condenser tubes.

Over 3,000,000 lb. of scarce copper, zinc, and nickel, plus significant amounts of not-so-scarce lead, iron, and steel will be salvaged for this year's crucial war production from old keys collected during last fall's drive.

• **An Impressive Total**—When you stripped your ring of cherished but obsolete keys and thrust them into the "keyhole for victory" of one of a million paper collection cans donated by members of the farflung National Paper Trade Assn., you helped unlock a hoard of 200,000,000 keys. At approximately 50 keys to the pound, that means 4,000,000 lb. of metal.

After all the iron and steel keys are sorted out, there will remain an estimated 3,000,000 lb. of brass and leaded nickel silver. And when Revere Copper & Brass, Inc., gets a new refining plant into operation for Metals Reserve Corp., its metallurgists expect to achieve a recovery therefrom of 1,950,000 lb. cop-



TREMBLING TABLE

Jittery is an apt description of a new vibrating table at Westinghouse's lamp division plant in Belleville, N. J. It has speeded inspection 400% by eliminating the chore of picking up each lamp base to check flaws. Bases now flop on contact ends as they jiggle into spiral "turnover" strips, then wriggle past critical eyes. Thus more inspectors are freed for work on other jobs.



We're in the Army, Now

... In the Navy and in the Air Corps too!

In Iceland and Ireland, ... from Africa to Australia, Clayton Kerrick Kleaners are helping our mechanized units keep on the move ... by keeping them clean, so they can be quickly inspected, serviced or overhauled. That's an important assignment which Kerrick Kleaners do better than any other type of degreasing equipment ... and is the reason Kerrick Kleaners are in the Army Now!

Another Task Force of Kerrick Kleaners is serving on the home front, performing hundreds of difficult cleaning jobs for essential war industries ... speeding production and contributing substantially to the war effort.

Whether it's cleaning a tank, truck, airplane, battleship, factory floor or a small repair part, Kerrick Kleaners do it faster, better and cheaper.

The Kerrick Kleaner is but one of several Clayton specialized products which are being produced in unprecedented quantities for the armed forces. The others include: Clayton Flash type Steam Generators ... Hydraulic Dynamometers ... Hydraulic Liquid Control Valves ... Boring Bar Holders and Boring Bars ... and Kerrick Cleaning Komponds.



The Kerrick Kleaner scientifically combines heat, water, a detergent and pressure to dissolve and remove the most stubborn grease and dirt from all types of surfaces. Illustrated is portable trailer Model L-O-E-T.

CLAYTON

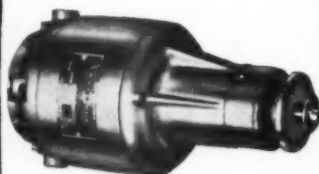
Manufacturing Company

ALHAMBRA, CALIFORNIA

Precision IN MOTORS..

VITAL FACTOR IN THOROUGH ENGINEERING

★ Every part properly designed... accurately made... to insure dependable motor performance under today's extremely severe operating conditions.



Knowing the importance of precision as a vital factor in *thorough engineering* and reliable performance, more and more manufacturers are turning to us because of our long experience and record in designing and building fractional horsepower, special application motors.

This valuable new experience, being gained through our complete participation in the war effort, will be reflected in improved motor operated equipment for the future.

THE BLACK & DECKER ELECTRIC CO.
KENT, OHIO



★ SPECIAL APPLICATION **MOTORS** FRACTIONAL HORSEPOWER



Side and rear view of Klamp-switchfuz Switchboard Unit, showing integral pull-box and arrangement of copper busbars.

Each Switchboard is an individual problem...

It should be planned to meet your particular requirements—to give efficient and economical service over a long period of time... To meet all industrial conditions, Ⓢ Distribution Switchboards are built in a wide variety of types: Live face; Dead Front, Safety Type—Klamp-switchfuz, Shutoffbrak or Circuit Breaker... Let the Ⓢ Sales-Engineer help you in planning your switchboard—without obligation. Or, if you prefer, he will quote on your own specifications. Write for name and address of the one nearest you, or see listing in Sweet's Catalog (Architectural Section or Industrial-Engineering Section); in Thomas' Register, or Electrical Buyers' Reference.



per, 660,000 lb. zinc, 330,000 lb. nickel, 60,000 lb. lead, based on preliminary analyses of various samples.

• **Method of Separation**—Actually, Revere is not planning to break down the key alloys to their four major constituents, but rather to distill off metallic zinc in an electric distilling furnace, using a reducing atmosphere of nitrogen to keep the zinc from becoming zinc oxide.

The key metal, minus the zinc, will then be charged into a scorifying, fire-refining furnace, not only to recover the lead content as slag for reduction in an outside refinery, but also to cleanse it of contaminants and to produce a high grade of cupronickel for use in condenser tubes now being hungrily sought by the Navy. As the nickel in the keys will not be sufficient, monel scrap containing more than two parts of nickel for every part of copper will be added to bring the nickel content of the tube alloy up to the percentage desired.

• **Pilot Plant at Work**—Fortunately the process to be used in the new refining plant has been tried and proved for several months in a full-scale pilot plant with a 15,000-lb. distilling furnace and a good-sized scorifying furnace which was built for an unusual purpose. According to R. A. Wilkins, Revere vice president and research head who developed the process, he got tired of trying to separate the nickel from the copper in scrap that he was called upon to refine, particularly when they were only going to be put back together as cupronickel.

When a call for help came to refine the metal resulting from the overly successful key drive just about the time the Navy was calling for help on cupronickel condenser tubes, Mr. Wilkins put the pilot plant to work. When the new plant gets going, it will have four 15,000-lb. distilling furnaces and a 50-ton scorifying furnace, giving it a refining capacity of about 1,500,000 lb. a month.

• **Final Collection Drive**—Meanwhile, under the guiding hand of R. H. Ziegler, secretary of National Paper Trade, volunteers from the American Women's Voluntary Services, the Boy Scouts, the Girl Scouts, and other organizations are making the final key collections, sorting them, and preparing them for shipment. One carload has been shipped from Chicago, another from Philadelphia, and two or three from New York. Before they are through with it, there may be more than 40 carloads.

Most of the keys are packed 50 lb. to a paper carton, before being loaded into boxcars, but the Philadelphia shipment went forward in an open gondola like so much coal. Scrap value is expected to run about 7¢ a lb., and Mr. Ziegler is hoping that a high point in his association's annual meeting next month will be the presentation of a \$100,000 check to the United Service Organizations.

"Yes! 3 typewriters can do the work of 4!"

25%
OF OUR TYPEWRITERS
HAVE GONE TO WAR!
KEEP YOURS BUSY



Note the "Forms with the Punch" which engage the pins on Standard's Registrator platen for positive feed and continuous writing

STANDARD'S method effects typewriter economies without RADICAL CHANGES!

THE SURVEY made for W.P.B. by the National Office Management Association reveals over 40 practical ways to save typewriters. Recognizing all these possibilities, your problem is to choose one or more methods that will *increase* typewriter production with *minimum* disruption of your existing procedures.

Therefore, consider the simple improvement of writing systems of control *continuously*—with Standard Kant-Slip forms. This alone often increases typing output from 25% to 50%, especially where loose cut forms are replaced and many needless operations are eliminated.

Then, typewriter - consuming red tape can be reduced in other ways. For example, you can select several related systems now written separately and combine them into a single form typed *continuously* at *one* operation. More than that, you can

speed typing by modern form design. Simply by streamlining the data in a form heading from zig-zag typing to horizontal flow, utilizing tabular stops, a time saving from 8% to 12% can be effected.

Yes, *three* typewriters can do the work of *four* without radical changes. Your Standard representative can quickly tell you how Standard's unique form-writing methods and Formcraft services can give you these results *now*.

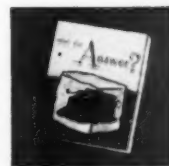
THE STANDARD REGISTER COMPANY DAYTON, OHIO

Pacific Coast: Sunset McKee-Standard Register Sales Co., Oakland, Calif. Canada: Crain Printers, Ltd., Ottawa, Ont. Great Britain: W. H. Smith & Son, Ltd., London.



RELEASE TYPEWRITERS by converting certain typewritten records to handwritten Victory Systems! The speed, accuracy and legibility of writing continuously on

Standard Kant-Slip Registers are proved. Now you can "make the pencil a business machine."



GET THIS FREE BOOK! A 24-page presentation that tells you how to save typewriters by Standard's Victory Systems—typed and handwritten. Explains Standard's complete

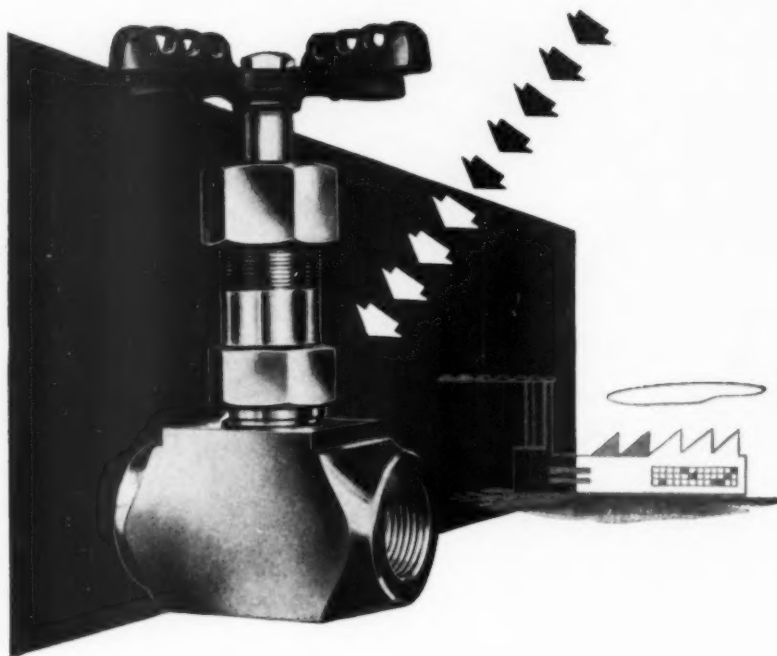
service. Cites actual cases. Write for "What's the Answer?"

Standard Systems of Business Control

"The Forms With the Punch"

© 1943 THE STANDARD REGISTER CO.

the Guard that is almost HUMAN!



Tough Problem + Stainless Steel = Product Improvement

In plants like yours, valves made of *Stainless Steel* are on 24-hour duty... silently guarding vital war processes. Often, you don't even hear about them because they do their jobs so well. In food plants, chemical plants and oil refineries thousands of *Stainless* valves are winning major battles against pressure, heat, corrosion and wear.

But this use of Carpenter *Stainless Steel* did more than safeguard processing. The valve manufacturer found that Free-Machining *Stainless Steel* (invented by Carpenter) helped to boost his output of *Stainless* valve parts. Then too, he showed his customers

that "*Stainless* valves" provided plus features for air compressors, hydraulic presses, Diesel engines, etc.

To add the plus features of *Stainless* to your post-war products, remember that Carpenter will gladly share its "know how"—gained from working out many problems involving *Stainless Steel*. You can start right now by asking for a copy of "Working Data for Carpenter *Stainless Steels*". This 98-page book is packed with useful engineering data about *Stainless Steels*, many fabricating hints and tables. A note on your company letterhead will start your copy on its way.

THE CARPENTER STEEL COMPANY
140 Bern Street, Reading, Pa.

Carpenter

STAINLESS STEELS

...for

- Strength
- Rigidity
- Heat Resistance
- Corrosion Resistance
- Longer Product Life
- Sales Appeal

BRANCHES AT Chicago, Cleveland, Detroit, Hartford, St. Louis, Indianapolis, New York, Philadelphia



MUSTANG'S WOODEN SHOES

Plywood disks—incribed by some wit, "Do Not Inflate"—increase assembly flexibility of North American P-51 Mustang fighter planes as they roll about during the final stages of construction. Like the dollies they replace, the wooden wheels are only temporary substitutes for rubber-tired wheels, attached when planes are ready for test flights.

Alley Contracts

Simple and complicated tools are being made for Army Ordnance by hundreds of small machine shops.

Conversion of America's production facilities to war needs has worked down from the industrial giants to the point where the Army Ordnance Department is putting back-alley machine shops to work on toolmaking. At least 1,000 small shops are being enlisted to produce around \$500,000,000 worth of repair equipment for Army vehicles.

• **Accent on Specialties**—The program was announced at the Ordnance Tank-Automotive Center, Detroit, where Brig. Gen. John K. Christmas, assistant chief, revealed that more than 200 such plants have been assigned work in various cities of New England, New York, New Jersey, Pennsylvania, and Ohio.

This pool of piecemeal producers will make some standard tools, such as hammers, chisels, pliers, and screwdrivers, but most of this work has been assigned companies that produced such goods in peacetime. Small producers will concentrate mainly on spe-



Any inexperienced person can operate an Ozalid Whiteprint Machine

MISS ARCHER was hired yesterday...and she's already operating the Ozalid Whiteprint Machine at top efficiency...making whiteprints of engineering drawings, charts, and letters in seconds.

This illustrates how Ozalid DRY DEVELOPMENT has revolutionized printmaking — transforming what was once a tedious job into a simple routine. You merely feed the original and the Ozalid sensitized material into the machine. Two quick steps—EXPOSURE and DRY DEVELOPMENT...and you have positive reproductions which are ready for immediate use in the shop or field.

Compare this simple process with blueprinting, which demands the services of more than one trained operator to check water sprays, potash baths, temperature of drying drums, tension of rollers...in addition

to other wasteful operations which throw print production off stride.

Follow the example of thousands of manufacturers who have been convinced of Ozalid's superiority. Install a compact Ozalid Whiteprint

Machine in your drafting room. You'll be sure of a "head start" in war production...and savings in labor and materials.

Write for "Simplified Printmaking," which completely explains the Ozalid Process.



SIMPLIFIED PRINTMAKING is an illustrated booklet containing valuable "know how" information. It shows how to eliminate unnecessary drafting; make prints with blue, black, maroon, or sepia lines on a white background; reduce trimming waste; make "new" originals for subsequent print production.

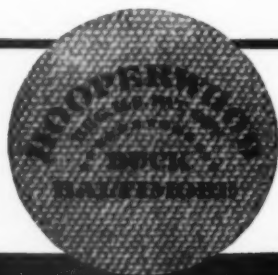
Ozalid Products Division

GENERAL ANILINE & FILM CORPORATION
Johnson City, N.Y.

WM. E. HOOPER & SONS CO.

New York PHILADELPHIA Chicago
Mills WOODBERRY BALTIMORE, MD.

Since 1800 (through six wars) the HOOPER name has symbolized highest quality in Cotton Duck and other Heavy Cotton Fabrics, Paper Mill Dryer Felts, Filter Cloth, Rope and Sash Cord



HOOPERWOOD COTTON DUCK

cial tools, such as electric or gas power devices, pan drainers, wheel pullers, tensile strength testers, and micrometers.

• **WPB Cooperating**—Special design equipment with long or specially shaped handles or heads—screwdrivers, socket wrenches, etc.—bulk large in this program. Outfitted with complete complements of such equipment, Army combat vehicles and their maintenance units will be able to make all but major repairs in the field.

Plants being engaged for this work were drawn from lists made up by the 13 Army Ordnance districts and from compilations of WPB's Smaller War Plants Division. Ordnance liaison men have been checking these shops and facilities to see what items they are best fitted to produce.

• **Civilian Economy Aided**—Quite often the shops are too small to handle all operations required to turn out one tool. In such cases, liaison men attempt to group plants in one area so joint facilities can complete the job.

Special equipment orders are being placed not only where the work can be done, but also where it will help fill voids caused by slumps in production of civilian goods. Small producers, with facilities for such work, are invited to inform their nearest Ordnance district office.

NEW PRODUCTS

Luminous Plastic Sheeting

After the new FPC Luminous Plastic Sheeting, just developed by Fluorescent Pigments Corp., 445 W. 41st St., New York, is excited by a floodlight lamp, an ultra-violet lamp, or daylight for about 20 seconds, or by an ordinary 100-watt lamp for a minute, it promises to glow for 24 hours if the surrounding temperature is 70 F. If colder, the afterglow is less bright, but lasts longer; if hotter, it is brighter for a shorter time. The afterglow is heightened by infra-red, or heat, rays, quenched almost instantly by red light, but easily re-excited as in the first instance.

The sheeting (which will also come in the form of tape) is made by hot-pressing a prefabricated phosphorescent pigment film between two layers of polystyrene plastic film. Since such plastic is notably resistant to moisture, temperature change, and chemical reaction, the composite material will lend itself to civilian safety and military uses outdoors as well as in. The afterglow of the material is blue-green, a color to which the dark-adapted eye is particularly sensitive, but which does not destroy its dark-adaptation. This feature plus its ability to be extinguished by red light and re-excited quickly are of particular importance to night flyers, other military men, and civilians subject to air raids.

Quick-Change Holder

Steel numbers, letters, and other symbols used in stamping metal are changed



quickly in the new Heavy Duty Hercules Holder recently developed by Acromark Co., 311 Morrell St., Elizabeth, N. J., in various sizes for marking cannon, gun carriages, ingots, billets, machine frames, whatever.

Thumb pressure opens an ingenious type-holding clip for any change of symbol type desired; release of thumb pressure locks the type tightly. Each holder is designed to center the striking force of the hammer or sledge used with it directly above the type. Holders of large size are furnished either with an

Heat large areas this NEW way—

DRAVO DIRECT FIRED HEATERS

THIS direct fired heater is a self contained unit with its own combustion chamber and fans as well as motors warm air in the space to be heated. One or more heaters of this type can be arranged to provide correct temperatures for industrial buildings, service camp structures of any size or shape. Such a system is quickly installed and there's a decided saving in money and metals over a central steam heating plant and attendant distributing system.

Oil...
Gas...
Coal...

• Types for any application—models for all fuels—Request Bulletin 505—or consult "Sweets".

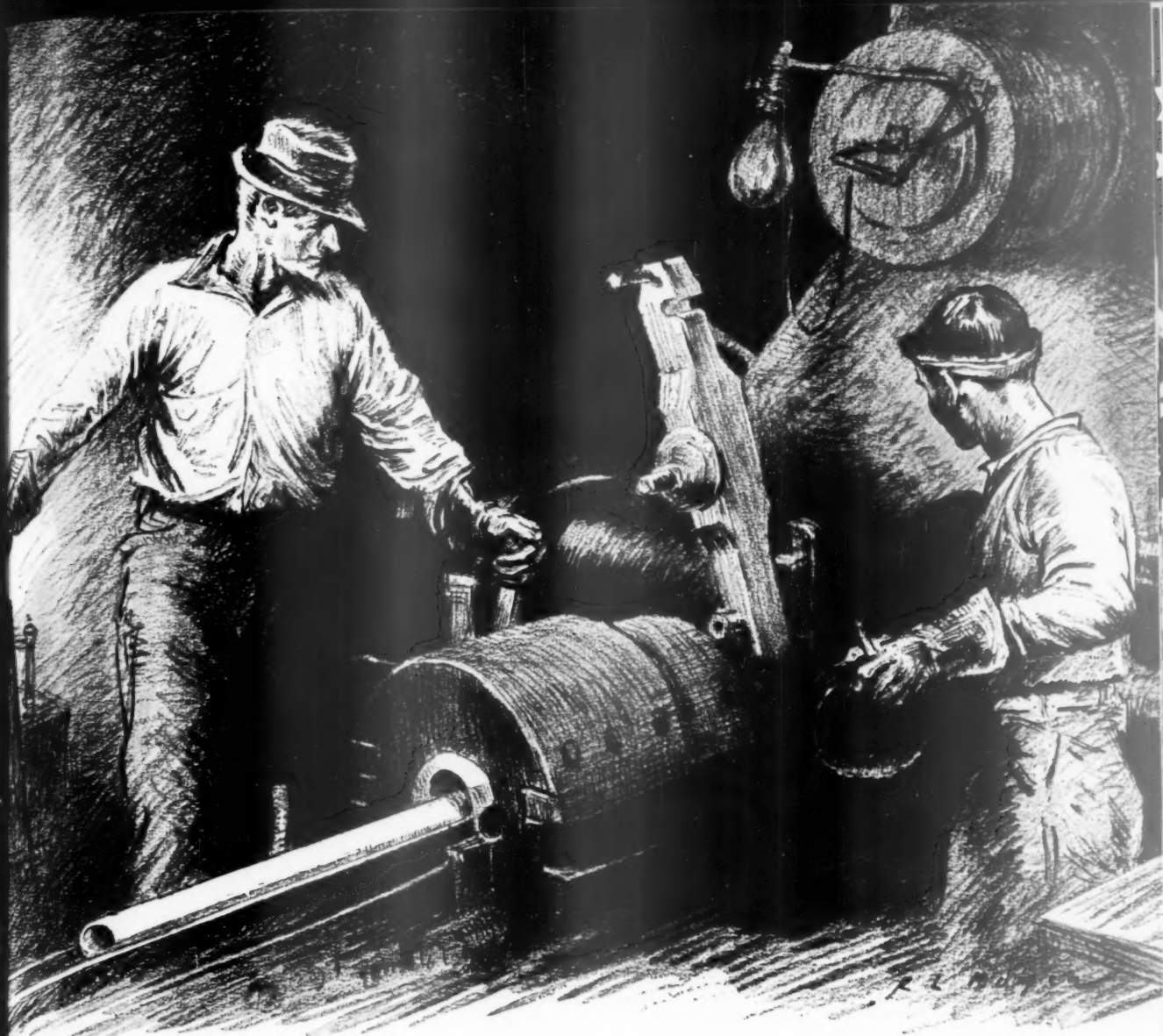
DRAVO CORPORATION

DRAVO BUILDING

Heater Department

PITTSBURGH, PA.

Forty-seven Sales Offices in Principal Cities



Brass History In The Making

When the powerful thrust of this giant Bridgeport tube extrusion press thuds against a red hot billet—the impact will eventually be felt in Berlin, Rome and Tokyo.

For anything that speeds up and improves brass production here in America reaches 'round the world today. And the more and finer brass we can produce, the better our men can fight.

This machine performs a task far beyond the scope of ordinary brass mill equipment. It makes possible the fab-

rication of highly corrosion-resistant alloys—cupro-nickel, aluminum brass, aluminum bronze and others—to meet ever-stiffening military and industrial demands. The result is better tube performance in hydraulic lines for Flying Fortresses...condenser systems for turbine-driven fighting ships... greater tube efficiency in the manufacture of synthetic rubber, foods, chemicals, oil refining and refrigeration systems.

Behind the accomplishments of

such a great machine is the initiative gained by three generations of alert brass making at Bridgeport. This experience, geared to modern research facilities, not only meets but frequently *anticipates* the exacting brass needs of America at war. When the war is won, it will work with equal zeal to translate war-learned knowledge into peacetime industrial progress.

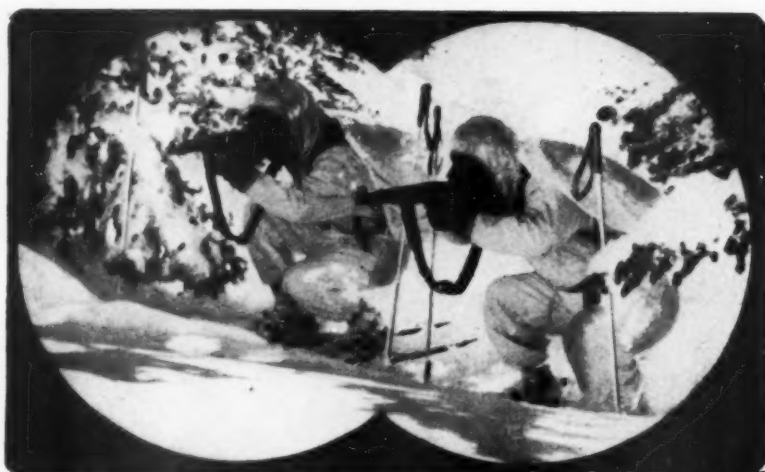


BRIDGEPORT BRASS COMPANY
BRIDGEPORT, CONN. • Established 1865

BRIDGEPORT



BRASS



... THAT SOME DAY

THEY MAY PLAY ON SKIS



With that purpose in mind, let us all do our jobs to the utmost of our abilities. Let us buy War Bonds, turn in scrap, conserve—that some day our young men shall again *play* on skis.

Skis were meant for sport. But in these days of winter warfare, skiing has become an important military technique.

Similarly, American industry has been converted—from the peacetime functions for which it was originally intended to the necessities of war. At our rubber plant in Trenton, for example, our skill and "know-how" in fabricating rubber products—acquired over a period of almost three-quarters of a century—are enlisted for the duration.

Like the skiing soldiers, our eyes are fixed on the years after Victory—when once again we may contribute to the building of a better America.

GOODALL RUBBER COMPANY, Incorporated • Philadelphia • New York • Boston
Pittsburgh • Chicago • Government Department, Washington, D. C.
GOODALL RUBBER COMPANY of CALIFORNIA • **GOODALL RUBBER COMPANY of TEXAS**
WHITEHEAD BROS. RUBBER COMPANY • Factory: Trenton, New Jersey. (Established 1870)

Manufacturers of
**INDUSTRIAL
RUBBER
GOODS**
HOSE, BELTING,
PACKING

GOODALL

RUBBER COMPANY INCORPORATED

WHITEHEAD BROS. RUBBER CO.

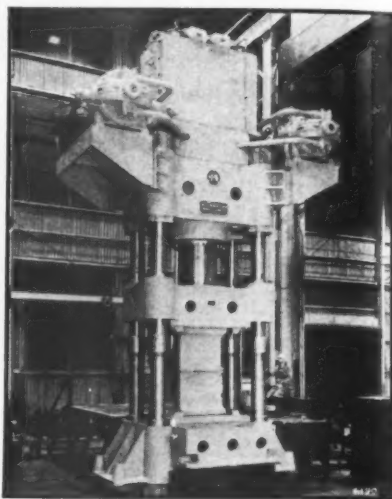
72 YEARS OF "KNOW-HOW"—OUR MOST VALUABLE COMMODITY

66 • Production

eye for a wooden handle or with fullers on the sides to hold a handle improvised out of twisted wire or rod.

Hydraulic Forging Press

Neither a steam boiler, an hydraulic accumulator, nor any other auxiliary operating equipment is required with



the self-contained 1,000-ton H-P-M Fastraverse Open Forging Press, new product of The Hydraulic Press Mfg. Co., Mount Gilead, Ohio. Instead, two direct-mounted 200-hp. electric motors drive inbuilt hydraulic pumps supplying power to the ram.

When a billet is laid on the lower block for forging, the ram closes the press at a speed of 560 in. a minute. Although the operator controls the amount of pressure applied to the work, the pressure begins to build up automatically (to maximum pressure of 1,000 tons, if necessary) as soon as resistance is met, and at a pressing speed of 105 in. a minute. One of the unusual features is that the ram travel is reversed without the use of an operating valve. Instead, the delivery of an H-P-M Hydro-Power radial pump is reversed by remote hand lever, giving smooth, shockless reversal and an opening ram speed up to the initial closing speed of 560 in. a minute.

Corrugated Storage Files

Because steel is on strict allocation and hardwood is becoming too scarce for use in the manufacture of storage files, Diebold Safe & Lock Co., Canton, Ohio, will market a new line of Diebold SafeTstak Corrugated Files. They are produced by the Hinde & Dauch Paper Co., Sandusky, Ohio, in several sizes and shapes out of strong corrugated board in a special green finish.

Both the outside shells and the drawers of the files are shipped and stored in the flat. When it comes time to put them to work, they are assembled by hand without tools, glue, or stitching.

Business Week • January 16, 1943

Trailers Trailing

From rags to riches and back again is the history of the house trailer industry, barred now from civilian production.

The house trailer industry blossomed into the fullest flower of its brief history last summer; now it is shriveling into a war-induced shell.

Trade gossip is that of the 100-odd firms manufacturing house trailers when 1942 began, only one-third or so of that number is left—excluding, of course, the garages whose owners make one or two trailers a year as a side line. The trailer industry was among the first to be inflated abnormally, then deflated abnormally, by the war.

• **Luxury Fleet**—Trailer manufacturing had its major spurt about five years ago, when national publicity suddenly centered on structures towed behind automobiles. As sales hit good volume, manufacturing companies mushroomed into existence. The trailer was transformed from a rude shell over a pipe axle to a luxurious adjunct to the motor car.

Garnishing the trailer proved a momentary undoing. Devised as a means of inexpensive travel, the trailer became too expensive a purchase when it moved into the luxury class. The thin summer of 1938 proved no help, and the many new trailer companies of the previous year vanished as quickly as they had bloomed.

• **Mobile Bivouac**—The outbreak of war in Europe and the calling of national guardsmen to active duty started a renaissance of the trailer industry. Soldiers going to camp where there were no facilities for their families bought trailers and lived in them. Southern camps during the summer of 1940 had widespread trailer environs.

As more permanent quarters were established and the officers and men be-

GAS FOR TRAILERS

OPA's recognition of the importance of auto trailers as homes for war workers was demonstrated last week in the authorization of special gasoline rations, when necessary, to tow a trailer from one war plant center to another.

Local war price and rationing boards were directed to make the extra rations available either to the owner of the trailer or to a person whose business is towing them. The latter also may keep eight passenger type tires, plus four at each separate branch at which a tow car is kept.



*Is your product 1A or 4F
in the NATIONAL NUTRITION PROGRAM?*

Is YOUR PRODUCT fully fit for war-time service? Can it get in there *and give*, in the national nutrition program to keep hard working America healthy and strong?

Foods that deliver high nutritional values rate 1A classification. Those that do not measure up to wartime needs face a dark future.

If your product is a logical one for vitamin enrichment or fortification, *now is the time to bring it up to 1A classification.*

And if you are or will be in the market for vitamin A, get the facts about what we believe to be the finest vitamin A concentrate obtainable.

Distilled Vitamin A Esters* is the name. This concentrate of vitamin A in the natural Ester form is produced by molecular distillation in high vacuum, a process which gives the resulting concentrate several unique advantages.

Distilled Vitamin A Concentrate in the natural Ester form is scientifically uniform in quality, extremely high in potency, two to ten times more stable in heat, light and air than any other commercial concentrate we have tested. Exceptionally bland, this vitamin A does not impart taste or odor to foods or pharmaceuticals.

Write for our new illustrated brochure, "The Story of Vitamin A Esters." And get complete information and performance data for your technical men.



*Protected by U.S. product patent No. 2,205,925 and more than 50 process patents.

DISTILLATION PRODUCTS, INC.

753 RIDGE ROAD WEST, ROCHESTER, NEW YORK

Jointly owned by EASTMAN KODAK CO. and GENERAL MILLS, INC.

Sales Agent:

Special Commodities Division, General Mills, Inc., Minneapolis, Minn.

"Oil-Soluble-Vitamin Headquarters"

gan to sell their trailers, demand grew up in a new quarter—for defense worker homes. The era of arms plant expansion was beginning, and factory workers wanted trailers to live in near their jobs (BW-Dec.7'40,p46). A trailer exodus began from the army camps to the arms factories, and the trailer manufacturers

continued to scan their sales reports with a cheerful eye. More companies entered the field.

● **NHA Enters Market**—In 1941 the trailer industry had its best year by many thousands of units. An estimated 60,000 trailers were produced and distributed. The National Housing Agency joined private buyers in the scramble for mobile homes (BW-Mar.22'41, p32).

As far as the trailer makers could see a year ago, the prospects were good. Demand was continuing, and materials shortages were then more academic than actual, except for aluminum. The first

quarter of this year saw an estimated 17,000 sales—best three months in trailer history. For the first nine months of this year, the industry turned out an estimated 44,000 trailers, the volume diminishing steadily through the summer as materials shortages overtook one producer and then another, forcing many of them out of business entirely.

● **Few Survivors**—In fact, by the start of October, virtually the only active trailer makers were the larger ones, roughly the group of 30 comprising the Trailer Coach Manufacturers Assn., which as a body through September had turned out 22,548 units in the nine months. This was some 35% ahead of comparative figures of 1941 for them, and in dollar volume represented a gain of more than 50%.

In mid-October came realization of the fears of the trailer men. WPB's Limitation Order L-205 cut down production by any one manufacturer to 150 units monthly and limited distribution to NHA. That is, if NHA orders but ten trailers from any specific trailer maker in one month, that is his ceiling output level.

● **Long Sleep Due**—Today, the effect of the order is only partially clear. Best guess is that trailer companies, except the very largest, will lapse into their somnolence of 1938 and thereabouts. When NHA comes to them with an order, they will open the doors, try to hire what manpower they need, and fill the order as soon as possible. Then they will close up again and hope that NHA will use their products severely enough to wear them out and insure a vacuum in supply when the war ends.

RUBBER-FELT MOLDINGS

A new combination of felt and rubber, now being manufactured in England and called "Relt," is producing moldings that look like natural rubber, weigh from 30% to 75% less, save quantities of the critical tropical material.

The felt is used as a core. In a simple example, a hollow cylinder with a diameter of $3\frac{1}{4}$ in., a bore of $1\frac{1}{2}$ in., and a depth of $1\frac{1}{2}$ in. is molded over a two-piece felt core with a diameter of $2\frac{1}{2}$ in., bore $1\frac{1}{2}$ in., depth $1\frac{1}{2}$ in. Made of rubber, the piece used to weigh 2.56 oz.; made of felt and rubber, it weighs 1.76 oz. The raw rubber content of the molding drops from 1.15 oz. to 0.54 oz., which figures out to nearly $1\frac{1}{2}$ long tons of raw rubber saved on a production of 100,000 pieces.

Since felt can be secured in various degrees of hardness or softness, the inventors of Relt (produced by Empire Rubber Co., Dunstable, Bedfordshire, with felt made by Bury Felt Mfg. Co., of Bury) claim that variations in the degree of resilience are more easily secured than with normal rubber moldings.

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Got a Development Engineer Working for You?

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Free . . . to plant owners, designers, development and industrial engineers, technical instructors and students.

Make no mistake about it, this war is ushering in a new order—especially in revolutionary new manufacturing methods and machine design. The trend is bound to grow.

Engineers with the "know how" of airplanes, tanks, ships, jeeps and automatic guns in their minds are going to turn out simpler, easier-to-produce automobiles, trucks, radios, washing machines, oil burners, air-conditioning units and other consumer and industrial machines. The short, quick way of manufacture is going to take precedence.

How can we turn it out faster? . . . with fewer parts? . . . with less machine work? How can we eliminate weight? gear trains? universal joints? bearings? Those are questions you are going to ask. **AND THAT'S WHEN YOU ARE GOING TO WANT THIS BOOK.**

It will tell your engineers how turning power can be applied through angles and around radii by one continuous *flexible* shaft. It will show how design can be greatly simplified—how friction and wear can be sharply reduced. And it will give you all the data on why flexible shafts are used so successfully by conservative designers to whom reliability, safety and efficiency are always first considerations in machine performance.

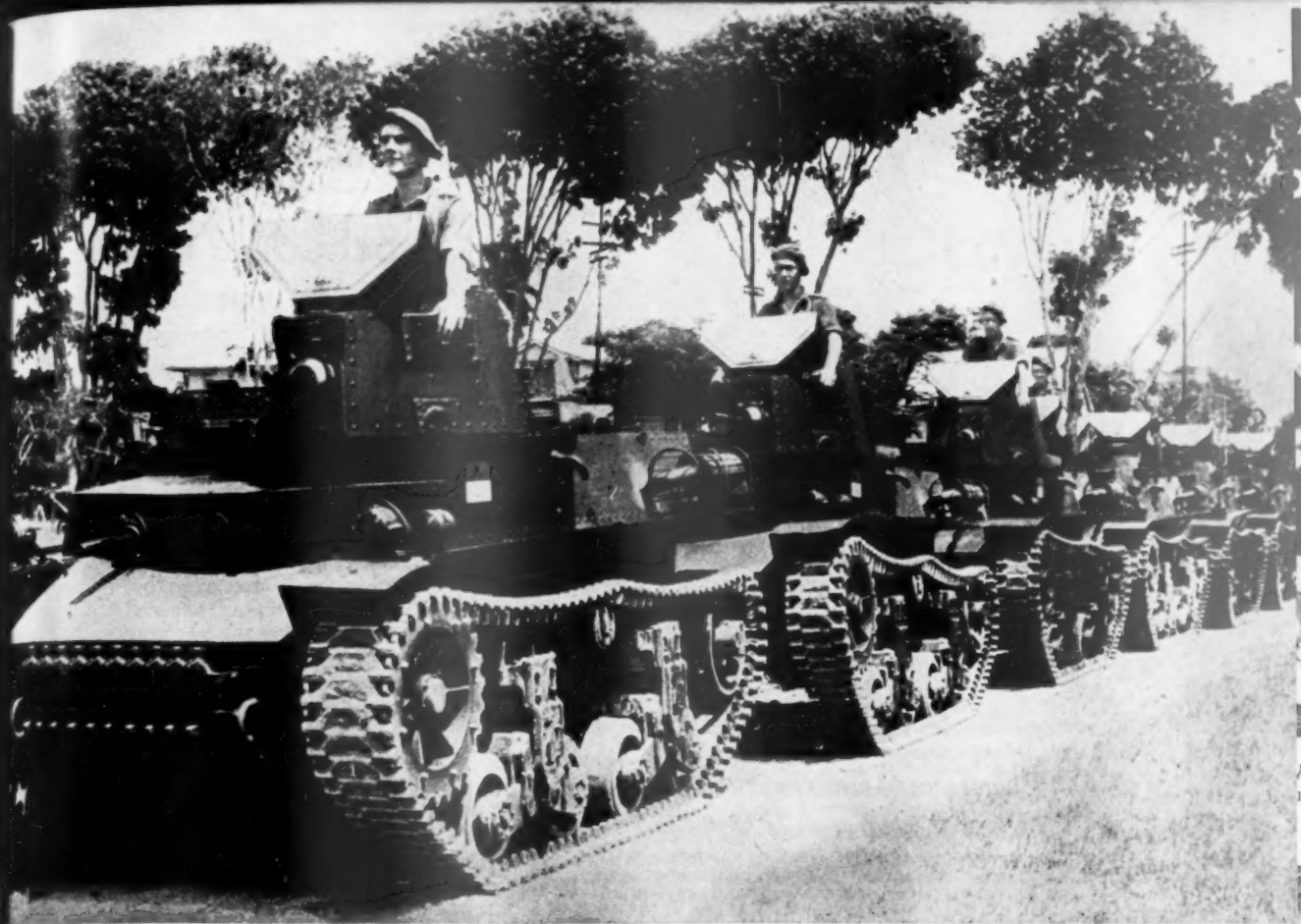
WRITE NOW. Get a copy for yourself and your development engineer. Refer to it when new designs come up for approval. Be prepared to ask—"can't we use flexible shafting and save production time here?"

Stow Flexible Shaft Mobile Units take power-driven tools directly to jobs requiring grinding, sanding, filing, drilling, polishing, etc.



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YOU CAN'T BEAT THE DUTCH!

WHEN it comes to foresight, and the courage to back up their convictions with everything they've got, there are no people in the world that can "beat the Dutch."

Hitler and the Japs are finding that out!

One of the first of all the countries fighting the Axis to realize the world-encircling possibilities of this war, and to place orders for military equipment in this country, the Kingdom of the Netherlands has thrown all the riches and resources of its vast empire into the struggle for Freedom.

The Dutch *hoped*, of course, that their country wouldn't be in Hitler's path, but they didn't wait to see, before starting preparations to defend themselves. Dutch ships are plowing the seven seas with arms and materiel for the United Nations. Dutch planes, tanks, and war-



ships are fighting on many fronts. Dutch men and women are proving their patriotism and valor at home and abroad.

Track-laying artillery tractors and tanks have been flowing from Marmon-Herrington production lines to Netherlands possessions continuously since early in the war. The tanks shown above, manned by Dutch Marines, are co-operating with U. S. forces in the defense of Dutch Guiana. From this

small Netherlands colony comes much of the bauxite on which the U. S. depends for its supply of vital aluminum. Its location, almost on a straight line across the Atlantic from Dakar, gives Dutch Guiana strategic importance far out of proportion to its size.

Orders placed by the Netherlands Purchasing Commission with this company, long before Pearl Harbor, enabled Marmon-Herrington to be one of the first automotive companies in the United States to achieve full-scale production of trucks and tanks for the United Nations.

Marmon-Herrington salutes the courage and steadfastness of the Dutch people. By example, they are showing the rest of the world the true meaning of the word "sacrifice," and of the "never-say-die" spirit which will eventually win this war.

MARMON-HERRINGTON

INDIANAPOLIS, INDIANA

The Right Idea

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LABOR

Schedule Upheld

Arbitrator sustains the right of management to shift to four turns in operations normally noncontinuous.

Management's right to institute new work schedules to achieve the most economical and efficient production was sustained in a Pittsburgh arbitration case that may have broad application in the normally noncontinuous operations of the steel industry, which have been accelerated by the war program.

• **Proposal Challenged**—A controversy grew out of a plan by the Spang-Chalfant division of National Supply Co. to expand war operations in the hot galvanizing department of its Etna (Pa.) plant by changing from a three-crew to a four-crew schedule. When the plan was presented to representatives of Local 1244, United Steelworkers of America (C.I.O.), the union protested, branding it an indiscriminate change of schedule in violation of the contract and an attempt at evasion of overtime payment.

As a counterproposal, the union suggested using a second galvanizing pot, which was idle, or retention of the three-crew system, with overtime pay for any extra work. Contending that operation of the second pot was uneconomical and would tie up 85 tons of war-essential zinc, management disregarded the union's opposition and posted the four-shift schedule. The crew scheduled to work under the new plan failed to report for work, and men who reported for work under the old schedule were turned away.

• **Planned 20 Turns**—The galvanizing department was to get the fourth crew from the conduit department where government restrictions had curtailed operations. The company planned operations at the rate of 20 turns (160 hours) a week, with the 21st turn—by which a crew would get one day's overtime in a four weeks' cycle—being used only when maintenance and repair work were required.

Inauguration of an additional crew to achieve seven-day production in finishing and fabricating departments of a number of steel mills has met strong opposition and even strikes. Workers regard the fourth shift as a threat to overtime pay and complain that it disorganizes the calendar week so that they often work Saturdays and Sundays.

• **Left to Arbitrator**—When the work stoppage failed to yield to conciliation, the company and the union submitted to Prof. Willard E. Hotchkiss of Car-

negie Tech, the union's nominee for arbitrator, this question: "Does the company, under its 1942 agreement, have the final right to schedule the operations of its plant, even though the union fails to mutually agree to the schedule change?"

Hotchkiss replied, "Yes," and declared that the new schedule was installed after due notice and consultation with union representatives; that it did not constitute an arbitrary or indiscriminate change; that it conformed to recognized precedent.

Leaders Ousted

They dreamt they dwelt in marble halls—but woke up when election eased them from boilermakers' marble palace.

Two years ago, Portland (Ore.) Local 72 of the A.F.L. Boilermakers' Union had less than 500 members and occupied a cubbyhole in the Portland Labor Temple. Today membership is more than 60,000, and the local does big business in an ornate marble-fronted "palace" (BW—Oct. 24 '42, p18).

• **Shipyard Monopoly**—Reason for the huge growth and prosperity is that Local 72 has closed-shop contracts to supply labor for the three Henry J. Kaiser shipyards in the Portland-Vancouver area—the contracts that the C.I.O. complained to the National Labor Relations Board were signed "illegally."

There's been undercover dissatisfaction recently among the rank and file. Members, who pay a \$30 initiation fee and monthly dues of \$3.50, have been irked by what some of them regarded as high-handed methods of the local officials. One of the minor irritations is that the swanky bar in the "Boilermakers' Palace," one of the most elaborate in Portland, isn't open to the rank and file but is reserved for "special parties." Even J. A. Franklin, president of the boilermakers' international, has clashed with the local's officers.

• **Rank and File Won**—Last week, Local 72 held an election—which was preceded by vigorous campaigning for the "rank-and-file" slate—and the slate won. Earl Ingram, 1942 president, didn't run for re-election but supported Hugh Fagan who was defeated by Al Jordan, a "rank-and-file" leader. Other winners were of Jordan's persuasion.

After the battle, the new officers announced a "rank-and-file" membership meeting would be held and promised a financial report and regular audits hereafter.

• **Ray's Immunity**—Sole survivor of the reorganization was Tommy Ray, veteran business agent of Local 72, whose job was not at stake. Ray enjoys a curious

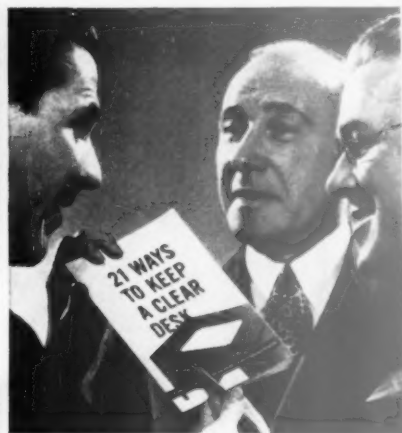
It's time we took inventory of our office methods, too



"LOOK AT THE PLACE! Every desk is a junk heap! And ours are no exception! We all of us swamped with details, too busy for really important work. Especially the newcomers. They spend too much time on footwork, too little on headwork. But it's their fault. We haven't the right kind of system for rush work."



WHAT'S THE CURE? Paper — printed paper. Memos, instruction forms, progress reports to lighten the load of detail, get jobs done right and on time. Now, more than ever, you need the right "paper work" to extend your own ability, to replace experienced manpower, to guide new unskilled workers.



WHAT TO DO ABOUT IT? Organize your office to work more effectively. Hammermill offers you a book that will help you plan jobs. Your printer is the man to help you turn your plans into action. First, get your copy of "21 Ways to Keep a Clear Desk." Then, call in your printer.



Send for these business helps. Forms to clear your desk of detail . . . letterheads and envelopes to help you get and hold business . . . short cuts in planning and ordering printing.

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Modern Manufacturing
BUILDING
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Building occupies plot 237 x 185 feet. Typical floor at left. (33,600 sq. ft. per floor)

A RARE OPPORTUNITY... IN PHILADELPHIA

266,000 square feet of heavy-duty floor space with carrying capacity up to 300 lbs. per sq. ft. • 7 day-lighted floors, automatically sprinklered, concrete construction • Private siding on Reading Railroad • High speed passenger elevators • 3 freight elevators • Adjacent building of 82,000 square feet also available.

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CO-OPERATING REALTORS

immunity, partly by virtue of the fact that his tenure rests with the officers rather than with the membership. Whether the shakeup may jeopardize his future remains to be seen. Certainly Ray was a greater power than any of the officers who were defeated.

Training Speeded

Military need for repair and maintenance specialists spurs G.M. "output" to over 2,000 trainees a month.

Training of workers is undergoing a revolution as a result of the war. The need for maintenance of field equipment—cannon, trucks, aircraft—has resulted in an enforced speedup in "production" of repair-specialist manpower for the armed services.

• **Still Growing**—General Motors, largest single producer of war material, is likewise the largest single producer of specialist manpower. More than 2,000 members of the armed forces are "graduated" monthly from 16 G.M. schools set up in conjunction with the military; this number will be increased by at least 50% during 1943, and the number of schools will come close to doubling.

The lesson for industry implicit in this program is, as Charles F. Kettering put it, that a practical shop approach produces faster comprehension than does the textbook approach. Translated to specific terms, General Motors uses visual charts, cutaway sections, movies, and slide films to outline mechanical setups; but 80% of the time is spent in the shops, actually disassembling, repairing, and reassembling armament.

• **Picked by Officers**—Training periods, in this setup, run from as little as ten days (for previously trained men gaining specialized knowledge) to as much as eleven weeks for others who come to instruction shops completely unfamiliar, in many instances, with mechanical installations.

Men selected for factory-training assignments are picked by their officers. Following training, they return to their posts with specialist ratings. Some are designated as instructors; most appear destined to go to overseas bases, for assignments ranging from basic supply depots right up to front-line repairmen, doing emergency maintenance work under fire.

• **Hub at Allison**—Most impressive of the General Motors training schools is the Allison Division, center of a system that turns out more than 500 aircraft engine specialists a week.

The Allison operation is specialized. The General Motors Institute at Flint scatters its educational shot. In this school are trained diesel and gasoline



Broken: A SACRED PROMISE TO A FIGHTING SON!

HE had meant it with all his heart—that pledge to “keep things humming” that he made as Jeff stepped on the train to camp.

And now his promise lay in ashes and twisted steel. “Carelessness,” they said! In the rush for production, little neglects had crept in. A pile of waste where oil could splash it . . . A blocked fire aisle . . . A factory gone!

Far smaller things than enemy bombs can slow the miracle of production that American free enterprise has achieved. Even a small fire in your home puts added load on hard-pressed industry!

Why doesn't it happen oftener? One reason is that voluntarily—at their own expense—Capital Stock insurance companies are waging their own war for America! Providing such safeguards as . . .

. . . An arson squad which helps authorities wage nation-wide war against arsonists . . . An army of hundreds of experts who devote full time to fire prevention—and who

have completed special surveys of more than 7,000 vital war factories.

. . . Development of safer methods of handling and storing hazardous materials . . . Periodic surveys of cities and towns, to provide authorities with “blueprints” for reducing fire hazards . . . And many others.

And these wartime safeguards were ready for the job—because they've been on the job in peacetime for many years! Keeping fires from starting! Saving lives and jobs and homes!

Find out more about this double-duty Capital Stock company insurance that not only pays if fire strikes, but actually helps keep fires from starting. The agent who displays the emblem below can supply it—and offer you expert help on safeguarding your home or business.



THE NATIONAL BOARD OF FIRE UNDERWRITERS

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85 JOHN STREET, NEW YORK

Here Is DEMOCRACY IN ACTION!

- Experts agree that one thing has done much to make possible the America we know—and the industries on which we now depend for survival.

- That thing is the assurance that an investment in a home—or a business—will not be destroyed and the investor ruined by a disastrous fire loss. By providing such assurance, fire insurance has made it safe to invest money and build the homes and industries of our nation.

- And by providing such protection voluntarily thru private enterprise—chiefly thru capital stock companies—insurance gives a true demonstration of democracy in action.

**INVEST IN AMERICA . . .
BUY WAR SAVINGS BONDS REGULARLY**



To Err is Human ----- BUT -----

More than ever, now is the time when business and industry can't afford to be slowed down by errors of any kind. Especially not those mistakes that occur when inexperienced employees are obliged to cope with inefficient office forms.

What to do about office forms that fall down on the job? Simply this: consult with your printer regarding your special problem. Solve it with his aid and with the help



of the business stationery plans which are set forth in his Nekoosa Bond Plan Book.

Call in Your Printer

Your printer will be glad to show you that book—to demonstrate how well-planned printing plus the right paper can improve *all* your business stationery. Naturally, much depends on the quality of the paper specified. Your printer can confidently recommend Nekoosa Bond. For here's a paper with a pedigree... its quality is guarded from forest to pressroom. Nekoosa Bond is strong, opaque and smooth... for clean-cut printing and typing impressions... blur-free signatures... clean erasures.

For further facts on Nekoosa Bond and what well-planned printing of business stationery can mean to you, call your printer today!

DEDICATED TO VICTORY...

Producing huge quantities of specialty papers for America's war job—all the Government asks for—is a duty we're proud to do. Proud we are, too, that it's done without skimping on the quality of Nekoosa Business Papers.

IT PAYS TO PLAN WITH
YOUR PRINTER

Nekoosa Bond

One of the Pre-Tested Business Papers manufactured by the Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin. Companion papers are JOHN EDWARDS BOND, NEKOOSA MIMOE BOND, NEKOOSA DUPLICATION BOND and NEKOOSA LEDGER.



TWO FOR ONE

Teams of white collar men who work four-hour night shifts at benches and machines after their regular jobs have helped solve labor shortages for the

Warner & Swasey Co., Cleveland. R. D. Tubaugh (left), junior high school teacher, takes over where King A. Wilmot, attorney, left off—the two thus filling the eight-hour shift of one full-time worker.

engine mechanics for the Navy and the armored forces, power train experts and armor plate welders for tank centers, and others.

• **Broad Field**—Other corporation divisions teach men to maintain air-cooled Pratt & Whitney aircraft engines; aircraft propellers; automatic cannon and machine guns for aircraft, anti-aircraft, and tank installation; fire control apparatus for the artillery; military trucks; and other matériel.

General Motors is putting some \$5,000,000 a year into this training pot. This money goes into general overhead—equipping the shops, paying instructors' salaries, routine expense not covered by the allowances of the seven military branches involved—Army, Navy, Air Force, Engineers Corps, Marines, Armored Force, and Tank Destroyers. The need for these graduates is spelled by one significant fact: In World War I the average regiment had 4,000 hp. of equipment. Today the requirement of the mechanized regiment is 400,000 hp.

YOUTH GOES TO WORK

The lure of high pay is drawing teenagers in increasing numbers from high schools in Michigan into jobs. Work permits issued during November for boys and girls totaled 9,458, practically double the comparative 1941 total. New permits totaled 5,026 for 16- and 17-year-olds. Of these, 2,728 were girls

and 2,298 boys. In addition, 1,490 permits were reissued after job changes, and 1,420 issued for part-time work.

In the 14- and 15-year-old brackets, 1,522 permits were issued, 170 of them new. Jobs in wholesale and retail businesses absorbed 2,244 girls and 1,159 boys. Industry took 500 boys and 184 girls. As a result of the drift, Michigan's child labor laws will probably be codified and revised by the 1943 Legislature.

BOND DRIVE GLAMORIZED

An old merchandising scheme with a modern twist marketed \$14,288 of war bonds and stamps at the annual Christmas party for employees of Marmon-Herrington Co., Inc., Indianapolis, Ind., and opened a wide avenue of possibilities for "painless" promotion of bonds.

Election of a queen to reign at the Christmas party was the promotional vehicle. Purchase of bonds or stamps was the voting qualification, with one vote for each penny invested. The stunt, credited to the Marmon-Herrington paymaster, Dorsey Greer, was a smash hit. Among six candidates, the winner, Miss Betty Richardson, polled 479,545 votes.

Bond purchases through payroll deduction, in which all employees participate, didn't count. Thus the contest sponsors could demonstrate that they had skimmed off \$14,000 of purchasing power that might otherwise have spurred inflation.

esgaden!



Allis-Chalmers equipment helps in the production of every type of U. S. warplane!



A-C Equipment helps make uniforms, shoes, helmets, guns, parachutes!



Jeeps, beeps and doodlebugs (tanks) are all made with the aid of A-C equipment!

Power for American war plants flows from Allis-Chalmers steam and hydraulic turbines!

VICTORY NEWS

New "Motor Finder"—Free! To help motor users fill wartime needs quickly and to conform to recent WPB recommendations, Allis-Chalmers offers a new "Motor Finder" for selecting the various types of squirrel-cage motors.

With this finder, the motor user can match conditions under which motor must operate, with required motor characteristics, and instantly learn the right motor type and its features. **FREE!** Write today!



One of 20 huge pumps which will drive oil through the new "Texas to Illinois" pipe line, being tested at an A-C plant

New Welder: A new Allis-Chalmers Alternating-Current Welder, operating from a perfect electrical circuit that produces just the proper voltage for every current setting, is now ready.

Transformer and reactor are built as an integral unit. Reactor coils surround the air gap, eliminating magnetic leakage.

This provides continuous control from 35 to 250 amperes—a safe, high, open circuit voltage at low current; lower open circuit voltage at higher current. Striking characteristics are improved, size and weight of the unit are reduced.

This new welder, designed for heavier metals, supplements the widely used Allis-Chalmers Weld-O-Tron, a D-C unit capable of welding a variety of metals as thin as 32 gauge at current as low as 5 amperes. Together these welders cover a range from 5 to over 600 amperes.



FOR VICTORY
Buy United States War Bonds

ALLIS-CHALMERS

COOPERATION TO HELP INCREASE PRODUCTION IN THESE FIELDS...



Dues Protested

Anthracite walkout tied to increase in dues approved by U.M.W. convention; miners turn deaf ear to appeals.

If John L. Lewis thought, when he purged C.I.O. President Philip Murray and his adherents from the United Mine Workers of America last year, that he had curbed internal ructions in the union, his members in the anthracite field demonstrated the fallacy of his dream this week in dramatic fashion.

• **Appeals Ignored**—In a movement that swept from colliery to colliery, miners in Pennsylvania's Luzerne County hard-coal field stopped working in protest against an increase in their monthly union dues voted by the U.M.W. convention in Cincinnati last October.

As the number of idle miners grew daily from 1,300 to 3,000 to 9,000 and, by midweek, to 15,000, appeals to abandon the strike poured in from the National War Labor Board, the Truman committee of the Senate, Solid Fuels Coordinator Harold L. Ickes, and other government agencies. The strikers replied they would return to work when they recovered the dues increases deducted from their last two pay envelopes, not before. Even a supplemental order from NWLB that "this strike against the nation at war must be ended at once" had little effect on picket lines.

• **Strikers Firm**—They likewise were unmoved by word that the U.M.W. had condemned the strike. When Lewis, himself, journeyed from Washington to New York to meet with operators and other unionists on the Anthracite Committee of Twelve and served telegraphic notice on the strikers that they were violating their contract and their "obligation to the government," their only response was to close down a few more collieries.

With Lewis, Thomas Kennedy, secretary-treasurer of the union, discounted the importance of the increase in dues, from \$1 to \$1.50 a month, as a factor in the strike. Rather, he insisted, the strikers wanted a pay increase of \$2 a day—and he remarked that the demonstration was ill-advised since the union is going after wage increases when present contracts expire next April.

• **Relief Chances Slim**—The strikers' chances of achieving either wage increase or dues reduction appeared equally remote, with the National War Labor Board on the one hand discouraging wage rises and the union on the other declaring it has no intention of yielding on dues. A year and a half ago, when 22,000 anthracite miners conducted a 27-day strike against union assessments of 50¢ a month (BW—Oct.



BIG PUMP FOR BIG INCH

Big centrifugal pumps will force oil through the "big inch," 24-inch pipeline from Texas to the Atlantic Seaboard. Through the 16-in. intake in this Ingersoll-Rand, oil will be sucked out of a bypass in the main line and returned through a 12-in. discharge to speed it onward and eastward. Each pump will be driven at 1,780 rpm. by a 1,500-hp. motor. Three such pumps connected in series will constitute a typical pumping unit.

11'41,p67), they achieved nothing from Lewis but a shakeup in local administration.

There was no fuel crisis at that time, however. And while there was no immediate concern over the daily loss of 40,000 to 45,000 tons of anthracite in an industry that accounts for 1,200,000 tons a week (page 14), sentiment on the sidelines was that the margin of B.t.u.'s was too slender for unnecessary risks.

• **Butter for Parsnips?**—Inability of the Committee of Twelve to budge the strikers infuriated Ickes. To the committee's message that the miners had been "urged" to return to work, the fuels coordinator snapped that "soft words butter no parsnips" and "inconclusive words to the chilly homes of the nation make a poor substitute for fuel." What angered him was that the government had just approved an increase of 50¢ a ton for anthracite to enable the operators to meet the expense of a lengthened work week for increased production.

By stretching the week from five to six 7-hour days with the time-and-a-half pay for the sixth day, the union and operators made it possible for the miners to increase their weekly earnings by about 30% while making a valuable contribution to the nation's fuel supply. Some miners argued, however, that there was no guarantee of a six-day week and premium pay.

Kaiser Fights

Repeatedly rebuffed by NLRB in his charge of bias, shipbuilder asks courts to block inquiry; jurist to decide.

Henry J. Kaiser not only reiterated his objections to review of his shipyard labor contracts by the National Labor Relations Board as now constituted, but also went to court for an injunction when NLRB opened hearings this week in Portland, Ore.

• **Members Attacked**—That U. S. District Judge James A. Fee denied—with what seemed reluctance—immediate injunctive relief failed to discourage the Kaiser legal battery. Before NLRB Trial Examiner Robert N. Denham, the shipbuilder's lawyers pursued with enthusiasm their charge that two members of the board had disqualified themselves by prejudging the case.

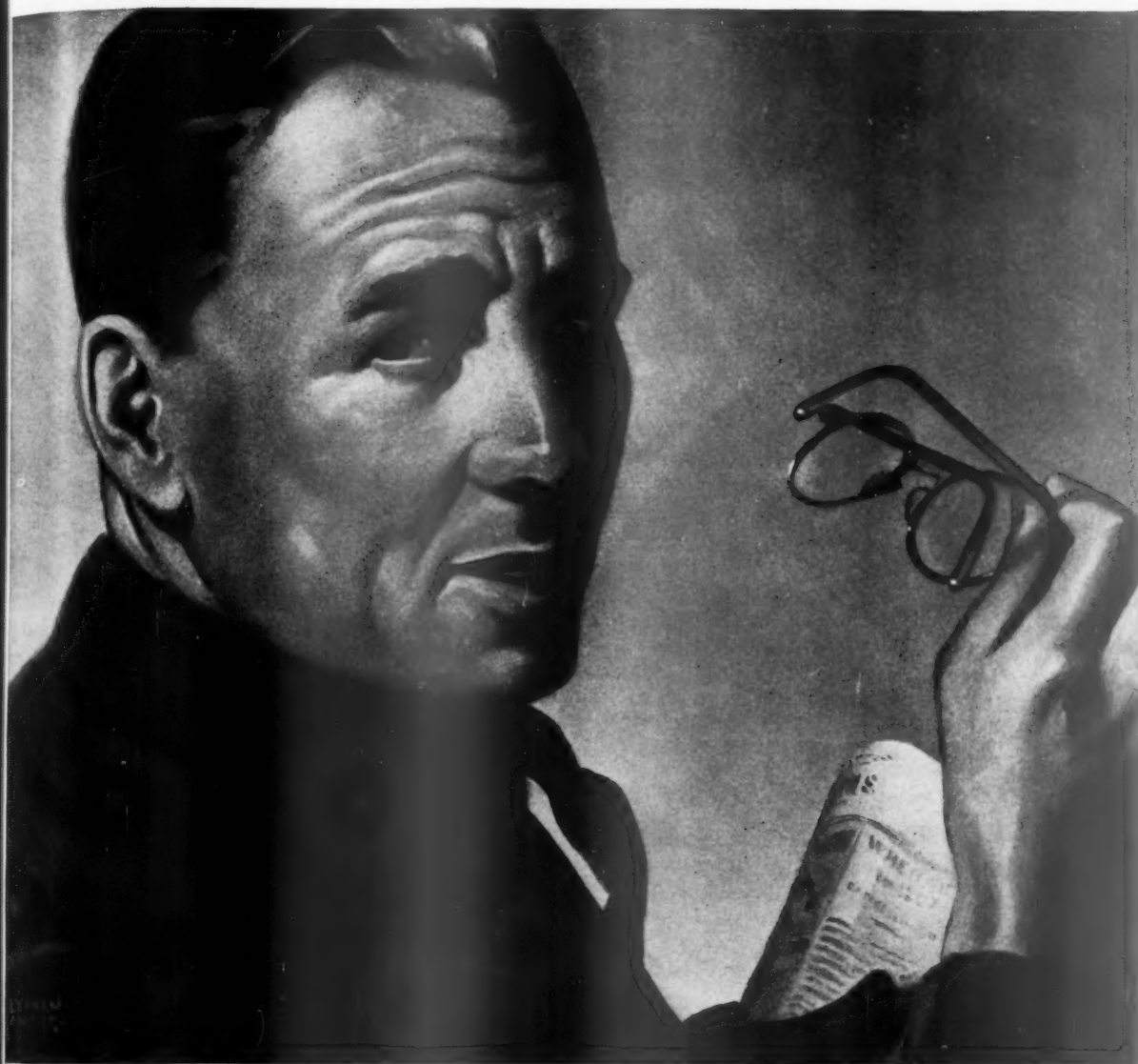
Hence, somewhat more than the usual hostility to an NLRB "trial" attended the opening of Denham's inquiry into the legitimacy of Kaiser's labor contracts with 16 A.F.L. metal trades unions, monopolizing employment at Portland and Vancouver shipyards.

• **C.I.O. Responsible**—Inspiration for the inquiry originated with the C.I.O. Industrial Union of Marine and Shipbuilding Workers, frozen out of the Kaiser yards by the A.F.L. closed-shop agreements (BW—Nov. 28'42,p94), which were signed, it is alleged, before Kaiser had recruited 1% of his total labor force.

Harry F. Morton, vice president and general counsel of Kaiser Co., Inc., made no headway before the trial examiner with his charge of bias and prejudice against NLRB Chairman Harry A. Millis and Gerard D. Reilly, member, a charge the board already had aired—and dismissed. The charge was based on remarks attributed to the members during preliminary conferences.

• **Production Chaos Seen**—Rebuffed on this approach, Morton painted a gloomy picture of the production chaos he said will ensue if NLRB upsets the A.F.L. contracts. Denham met this argument with a pledge that he won't tolerate loss of a single man-hour in ship production. Judge Fee may decide next week, through show-cause proceedings, whether the inquiry shall continue.

Indicative of the importance attached to the proceedings by the rival labor camps was the presence of John P. Frey, president of the A.F.L. Metal Trades Department and coauthor of the disputed contracts, and diminutive John Green, president of the accusing C.I.O. union, as well as executives of other A.F.L. unions concerned.



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WHEN it comes to dictating, the great American consumer has them all beaten! As far as he's concerned, getting the best is very simple.

You just ask for it!

But supplying the best is not a simple matter for the manufacturers on whom this great dictator is casting his shadow—especially in the case of the new products he is expecting as soon as peace is declared.

Automobiles at half the cost, that go twice as far to the gallon! Houses that cost no more than a good car, but with all the conveniences of a palace! Household equipment that will be compact and indestructible! Air conditioning, radiant heating, television, electronic household controls...

And priced so that the average American can afford all of them!

American industrial ingenuity *will* give the consumer what he wants. But it will take revolutionary practices. And often the use of apparently fantastic materials.

Of course the war has brought about the eager testing of every material that research and metallurgy could devise. And many of these substitutes have earned a definite place in the field of metallurgy.

But which material? Under what circumstances? For which specific application?

Revere can help answer many of the questions that beset industry. For just as industry in the future will not be restricted to the traditional materials, neither will Revere. Since the war started, in addition to widening still further the uses for copper and its alloys, Revere has gained wide experience with the light metals, and has

developed wholly new kinds of alloys with important properties that can cut manufacturing costs for many industries.

With this great expansion in the range of Revere metals, you can be sure of singularly impartial service from Revere. Today, the copper industry is working all-out for Uncle Sam. No copper is available except for winning the war. But post-war planners with specific problems in metals are referred directly to the Revere Executive Offices in New York.

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

Executive Offices: 230 Park Ave., New York

FINANCE

More Sacrifice

That's what President's budget message asks of the man in the street; up go taxes and compulsory saving nears.

Behind the rolling words of President Roosevelt's budget message lie two basic facts that will probably control government financial policy until the end of the war. First, war production will hit its full stride in the next fiscal year, which ends June 30, 1944; this \$109,000,000,000 budget is therefore "the maximum program for waging war." Second, present levels of civilian income and consumption are higher than anything the national economy can support when war production reaches its peak. There must be more taxes, more saving, more consumer sacrifice.

• **Where the Billions Go**—On its expenditure side the budget shows how completely the war dominates government activities. In fiscal 1944 the federal government and its subsidiary corporations will spend a total of \$109,000,000,000. Of this, \$97,000,000,000 will go directly for war activities; another \$3,000,000,000 will be used by government corporations (principally the Reconstruction Finance Corp.) for war work. Servicing the rapidly growing national debt will take \$3,000,000,000 more. Of the balance, \$4,000,000,000 will support regular activities, and \$2,000,000,000 will go to subsidiary corporations for nonmilitary purposes.

While the estimates of total expenditures for fiscal 1944 represent an enormous increase over the current year, they nevertheless reveal that government outlays are leveling off. In fiscal 1941, expenditures totaled only \$12,774,000,000. In 1942 they jumped to \$32,491,000,000, and in the year end-

ing next June 30, they will total \$80,437,000,000. The \$109,000,000,000 forecast for fiscal 1944 represents an increase of only one-third, whereas in the two preceding years each new budget more than doubled expenditures.

• **Army and Navy Slices**—The budget's breakdown of war outlays certainly reveals no military secrets, but it does give a rough idea of where the money is going. In fiscal 1944, the Army will get around \$62,000,000,000 and the Navy \$22,000,000,000. The remainder is to be divided among a variety of agencies, with the largest slice, \$7,000,000,000, going to "supplemental items."

Broken down by purpose of expenditure, war outlays in fiscal 1943 and 1944 stack up like this (figures in billions):

	1943 Fiscal	1944 Fiscal
Munitions	\$43	\$66
Military and civilian pay, subsistence, and travel.....	15	21
Industrial construction.....	6	2
Other construction.....	8	5
Other, including agricultural lend-lease	5	6
Total	\$77	\$100

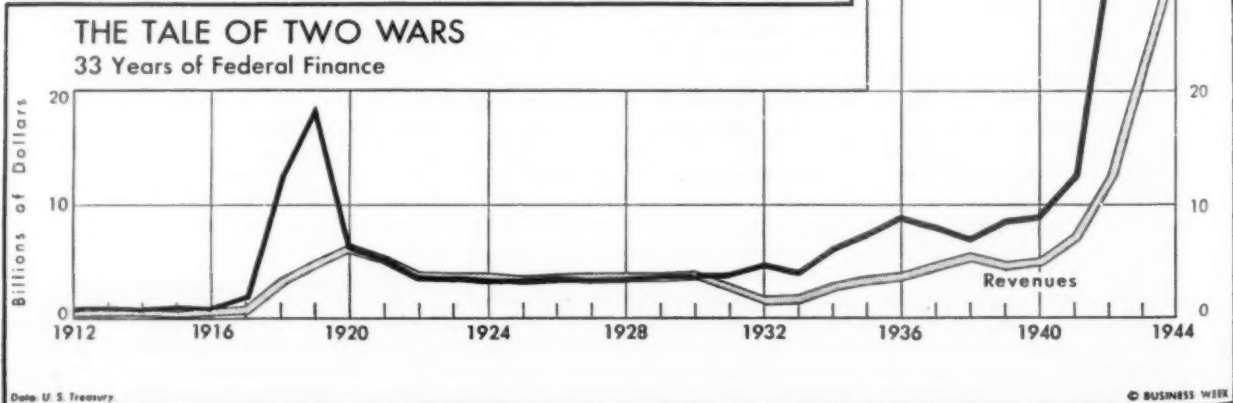
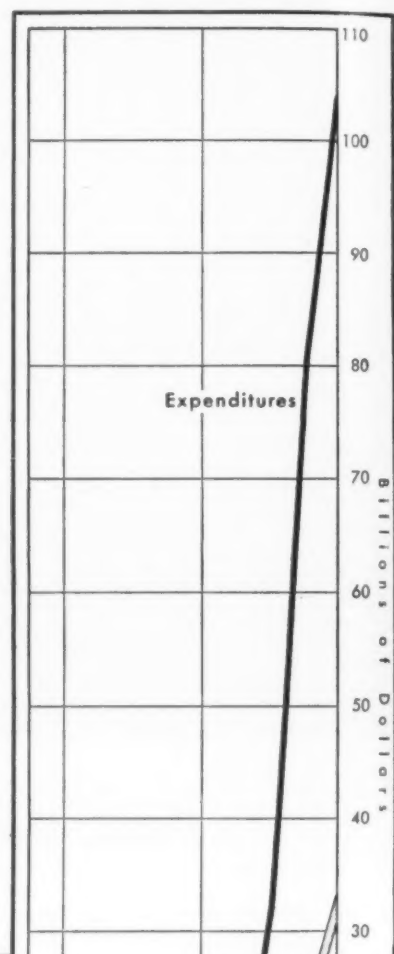
Most striking features of this tabulation are the increase in the amount allotted to munitions and the decline in construction, particularly industrial construction. This reflects mounting deliveries of finished goods as contractors complete plant construction and get down to production.

• **What's Needed at Once**—Against the total budget of \$109,000,000,000, the President recommended prompt appropriation of \$87,820,000,000. Of this, \$80,486,000,000 would be for military activities, \$4,334,000,000 for regular government work, and \$3,000,000,000 for servicing the national debt. The remainder of the budgeted total is to be appropriated later in the year, when closer estimating will be possible.

Conspicuously absent from the ap-

propriations list was any reference to lend-lease activities. The lend-lease act expires next June 30, and until Congress renews it, the President will have no authority to recommend appropriations for fiscal 1944. This does not mean that lend-lease expenditures will be added to the \$109,000,000,000 total. Estimates of the funds needed by the various government agencies include their lend-lease requirements, but no appropriations will be requested until Congress has taken care of new legislation.

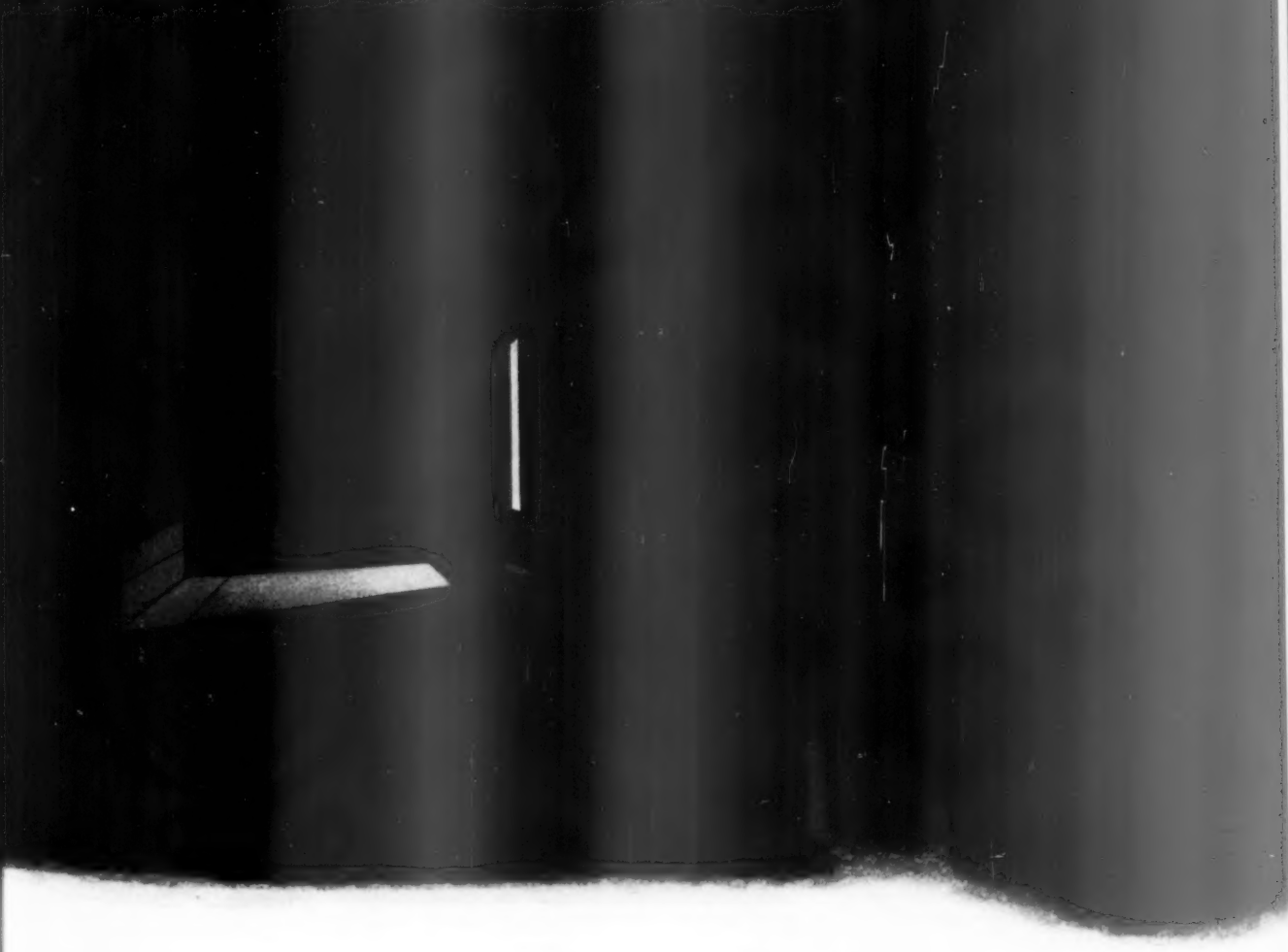
• **For WPB and OPA**—Also missing from the appropriations list was any



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SS WEEK
1943

the light that will burn all night



This is the entrance to the Truscon engineering and research laboratory. Behind this door, men are at work over planning boards—visioning new structures of the future—designing new types of structural units—developing new methods of faster, safer, more efficient construction. They are the men who have never been content to let well enough alone—whose energy and ability are guided by earnest purpose, not by the clock—whose never-ceasing desire for progress has helped Truscon become the world's largest peacetime builder of steel building products. Watch these men. Work with them. For, when the war is over, and the victory has been won, they will have ready the major advancements so essential to success in your new construction requirements.

Business Week—January 16, 1943

TRUSCON
Steel Company
YOUNGSTOWN • OHIO
Subsidiary of Republic Steel Corporation



Are Cutting-oil Temperatures Your Bottleneck?

IF SO, BREAK IT WITH THE F-M INDUSTRIAL FLUID COOLER

Where tolerances are measured in tens of thousandths of an inch, controlled coolant temperatures are necessary to break the bottleneck of lost time, wasted material, and frequent repairs to equipment.

A close fit between a 2-inch steel shaft finished at 120° and a bronze bearing finished at 70° cannot be made, because accurate size specifications of any metal object are subject to the temperature at which the dimensions are measured.

To provide industry with a simple, accurate, and economical means of controlling and maintaining lowered temperatures of coolants, Fairbanks-Morse developed the F-M Industrial Fluid Cooler. It is a "package unit"—complete, compact, ready and easy to install. It can be used to control the temperature of cutting oil; to cool hydraulic oils; to maintain constant temperature of quenching baths; to control temperature in laboratory testing; and in condensing and dehydrating operations.

Other benefits of the F-M Industrial Cooler are: tools remain cool while working; there is no need to stop to allow heat to be dissipated; resharpening and replacements are needed less often; damage from overheating is held to a minimum.

Consult your resident F-M engineer for complete and exact information as to how the F-M Industrial Fluid Cooler can speed up machining operations and provide extremely accurate control of precision work in your plant.

To meet him, write Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago, Ill. Branches with service stations throughout the United States and Canada.

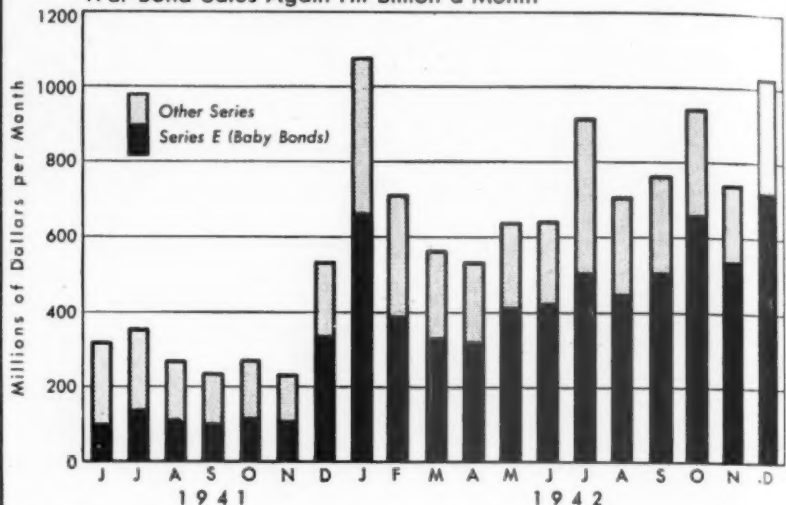


FAIRBANKS-MORSE

Air Conditioning and Refrigeration Equipment

THE LITTLE MAN'S SHARE

War Bond Sales Again Hit Billion a Month



Data: U. S. Treasury

© BUSINESS WEEK

"THE LITTLE MAN'S PART"

War bond sales topped a billion a year ago, then dipped and didn't get back to the billion mark until December. And even that level of

monthly sales may not be high enough to ward off compulsory savings; with the President calling for \$16,000,000,000 a year in new revenue, it's likely the people will be called on to buy twice as many bonds as now.

detailed breakdown of funds needed by the various war agencies—War Production Board, Office of Price Administration, and all the rest. The budget lumps them under "Executive Office of the President" and recommends an appropriation of \$2,798,963,000 for the lot. In this way the President has postponed another fight with Congress over funds for OPA and some of the other agencies that have trampled congressional toes. The battle will come later when he submits detailed requests, but for the time being Congress has nothing to serve as an issue.

To back up his promise to trim down nonwar expenditures, the President shows a total of \$4,124,000,000 recom-

mended for fiscal 1944, against \$4,582,000,000 for 1943. The comparison with preceding fiscal years comes out like this (figures in millions):

	Total nonwar expenditures	Reduction below 1939
1939.....	\$6,516
1940.....	6,246	\$270
1941.....	5,298	1,218
1942.....	5,125	1,391
1943.....	4,582	1,934
1944.....	4,124	2,392

Big question here is defining a non-war expenditure. Almost every government department and agency is getting a slice of the money earmarked for war activities. Without auditing the books, item by item, it is impossible to say

RATIONS BY CHECK

When ration banking (BW—Nov. 21 '42, p122) goes into effect on a nation-wide basis Jan. 27, retailers and wholesalers will see a lot of these special transfer vouchers. Dealers in

rationed goods will maintain "commodity accounts" at their regular commercial banks. They will first deposit the coupons at the bank and then draw ration checks transferring specific amounts to the accounts of wholesalers.

how much the decline in nonwar expenditures represents real government economy.

• **The Vanishing Point?**—The President, however, declares that we are "fast approaching the subsistence level of government." With the WPA eliminated and with many other regular activities curtailed, the field for economy has narrowed a good deal.

That means that, for the rest of the war, the \$109,000,000,000 budget represents not only the maximum program but also the minimum. Any adjustment of income to outgo will have to be on the revenue side.

And it is on the revenue side of the budget that consumer sacrifice comes in. At present tax rates, the President estimates that government revenue in fiscal 1944 would run to about \$35,407,000,000. If anything, that is an optimistic guess. Comparison of 1944 with 1943 by sources of income gives the following (figures in millions):

	1943	1944
Direct taxes on individuals	\$8,339	\$13,751
Direct taxes on corporations	10,070	14,915
Excise taxes	3,678	3,915
Employment taxes	1,472	1,982
Customs	252	204
Miscellaneous	741	639

• **Gross and Net**—The \$1,982,000,000 in employment taxes will be earmarked for social security, and \$800,000,000 will go back to taxpayers as the postwar refund on the Victory tax. Hence, net revenue for the year would probably run about \$32,500,000,000.

But neither the President nor the Treasury has any intention of leaving tax rates at their present levels. In his message the President asked for additional collections of \$16,000,000,000 "by taxation, savings, or both." This would bring current receipts of the government up to about 50% of outlays. Borrowing would finance the other half.

• **Individual Taxes**—If Congress decides to levy that extra \$16,000,000,000 in taxes and forced savings, individual incomes will take a shakedown that will make all previous taxes look like small change. Inevitably the heaviest part of the load will fall on individuals. Corporations are already paying roughly two-thirds of their net before taxes into the Treasury.

Best bet is that Congress will balk at doubling individual income taxes, may compromise on some compulsory saving. But a deficient tax bill means more borrowing—and the total debt on June 30, 1944, probably will top \$200,000,000,000. Servicing a debt like that means we never will get back to normal budgets; interest alone would run about \$5,000,000,000 a year, and other normal outlays would boost the total to around \$10,000,000,000. Then add on any provisions for postwar public works program, and you glimpse the future.

THE NATIONAL CITY BANK OF CLEVELAND



Statement of Condition

DECEMBER 31, 1942

ASSETS

Cash and Due from Banks	\$ 94,755,860.85
United States Government Obligations	155,778,092.49
Other Securities	12,620,486.36
Loans and Discounts	58,039,191.03
Banking Premises Owned	1,400,000.00
Other Real Estate Owned	17,266.33
Customers' Liability on Acceptances and Letters of Credit	327,625.82
Customers' Liability on Loan Commitments	9,919,068.13
Accrued Interest	644,611.31
Other Assets	197,219.12
	\$333,699,421.44

LIABILITIES

Capital Stock	\$ 9,000,000.00
Surplus	5,100,000.00
Undivided Profits	1,309,379.06
Reserves	2,396,694.05
Acceptances and Letters of Credit	327,625.82
Loan Commitments Outstanding	9,919,068.13
Accrued Interest and Expenses	166,188.71
Deferred Credits and Other Liabilities	793,465.58
U. S. Government War Loan Account	14,250,000.00
Corporation, Individual and Bank Deposits	\$242,897,824.87
Savings Deposits	32,290,784.29
Trust and Public Deposits	15,248,390.93
	\$333,699,421.44

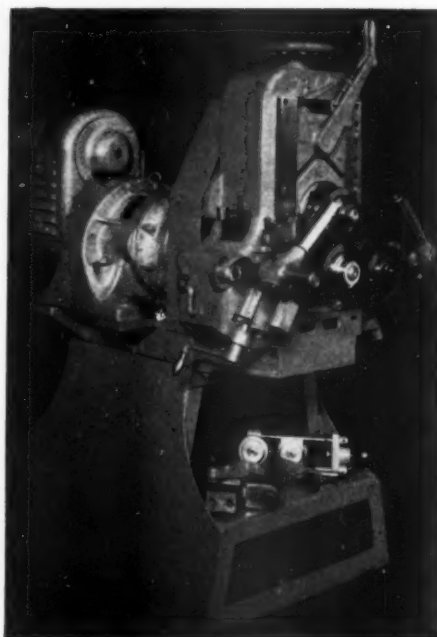
NOTE: United States Government obligations carried at \$31,241,783.79 are pledged to secure trust and public deposits, U. S. Government war loan account, and for other purposes as required or permitted by law.

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



With pride, the entire organization of the Buffalo Forge Company welcomes this new banner which now joins Old Glory over its plant!

The Army-Navy Production Award "for high achievement in war production" means to the workers at Buffalo Forge the recognition of their determination to see production's job through—efficiently and swiftly. The "E" Flag shall serve as an unflinching inspiration to carry on with ever intensified effort and cooperation—to hasten the ultimate Victory of our armed forces.



Buffalo Aircraft Type Bending Roll actively enlisted in plane production.



BUFFALO FORGE COMPANY

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Branch Engineering Offices in Principal Cities
Canadian Blower & Forge Co., Ltd., Kitchener, Ontario



Spark plug of an expanding West Coast industrial empire is Charles E. Moore, president of California's old Joshua Hendy Iron Works. Hendy, revitalized as a marine-engine plant by the Six Companies (Henry Kaiser and associates), has expanded through recent purchases of established pump and electric concerns.

Kaiser Integrates

Recent purchases by the group he symbolizes point to postwar industrial empire of great magnitude on Coast.

There are important signs that the construction group roughly known as "the Six Companies" (of which Henry J. Kaiser has become the popular symbol) is quietly rounding out a West Coast industrial setup which not only greatly facilitates the war work in which various units of the group are engaged, but also may hold significant postwar implications.

• **Hendy's Purchases**—That's the chief significance behind recent purchases by the Joshua Hendy Iron Works of Sunnyvale, Calif., now turning out triple-expansion reciprocating marine engines for the ships built by some of the Six Companies group on the West Coast. Hendy has bought the Crocker-Wheeler Electric Mfg. Co. (BW—Nov. 28 '42, p. 7), the Pomona Pump Co. of Pomona, Calif. (and its Westco Pump Division of St. Louis, Mo.), and the Hydriil Co. of Torrance, Calif.

The Hendy company, in which several of the Six Companies firms are associated, is now in a position to produce under its own management steam engines, turbines, electric motors and generators, flexible couplings, a wide assortment of pump styles, and ship

propulsion equipment which also includes larger gear reduction units.

• **How Hendy Shapes Up**—Hendy's directorate includes E. E. Trefethen, Jr., representing Kaiser; K. K. Bechtel, representing W. A. Bechtel & Co. and Bechtel-McCone-Parsons Corp. (Marinship and California Shipbuilding Corp.); F. F. Corey, who represents Utah Construction Co.; Felix Kahn, head of McDonald & Kahn. All of these are units of the Six Companies. President of Hendy is Charles E. Moore, head of Moore Machinery Co., San Francisco, who wasn't associated with the group until he sold them the idea of transforming Hendy, then almost inactive, into a marine-engine plant.

Few outside the construction industry realize how vast the operations of the Six Companies have become since the group was formed in February, 1931, to build Boulder Dam. Participants were MacDonald & Kahn, Utah Construction Co., Morrison-Knudsen Co., J. F. Shea Co., and Pacific Bridge Co., together with W. A. Bechtel and Henry J. Kaiser in a combined unit.

• **Now Inactive**—After Boulder Dam was finished, Six Companies, Inc. built the \$5,000,000 Parker Dam. Six Companies of California was formed to build the Broadway Tunnel in Oakland. Now inactive, Six Companies' corporate charter was revoked last year.

Since then the companies in the group have continued in an informal but close association and have been joined by three others, the General Construction Co., Bechtel-McCone-Parsons Corp., and Henry J. Kaiser Co.

• **More Than 300 Ships**—They jointly own some \$10,000,000 of construction equipment, can marshal for their jobs more than 1,000 engineers and technicians, and have some 500 experienced purchasing executives. Since December, 1941, they have built more than 300 cargo ships in their dozen West Coast shipyards. They are building drydocks, naval bases, tankers, marine engines, and pipelines, are producing cement, magnesium, and (early next year) steel.

Roughly, the group works as follows: One or more units may conceive a project and nurse it to the stage where a contract is obtained. They then become its "sponsors," and the group allots interests in the job.

• **Projects Interlocked**—Morrison-Knudsen Co., in a recent bulletin, listed a dozen ventures in which it was participating with one or more of the Six Companies group, including four of what are regarded as Kaiser enterprises—Permanente Metals (shipbuilding and magnesium), Permanente Corp. (cement), Oregon Shipbuilding (Portland shipyards), and California Shipbuilding. In addition, Morrison-Knudsen had some nine projects of its own. A project list of any of the other companies probably would show about the same.



Lack of adequate working capital is probably preventing many companies from doing a full-scale job of producing for victory.

Such companies need a second front—a new source of fast-acting, flexible financing, and we can help them.

Our financing plans are not handicapped by red tape. We do not tie you up with restrictions and limitations that may hamper your management of your own business.

If you are a manufacturer or wholesaler of products that are needed either for military

or essential civilian use, we are ready to provide an engineered financing plan to fit your special requirements. In many cases our financing facilities have been the major factor in aiding materially in wartime production and promoting profitable operations.

If you need additional working capital—thousands to millions—to finance current production on Government or other work, or to qualify for new Government contracts, we have specially qualified men to engineer a plan for you.

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Fig. 1927

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John Oster Mfg. Co. of Illinois, Genoa, Illinois



THE MARKETS

It's been two full weeks now since the start of the new year, and the stock market is still shuffling around uncertainly, giving no indication of where it will go from here. Wall Street hoped that with tax selling and year-end adjustments out of the way, the market would get down to business. Now, after two weeks of aimless seesawing, traders are beginning to get uneasy.

• **Market Lacks Character**—So far the market hasn't run into any heavy selling, but buying power has been disappointingly feeble. Volume, which has been hanging around 600,000 shares a day, shows no signs of increasing when the averages attempt a rise. Moreover, most of the trading has been in the lowest price group, which means that there is little real money in the market.

On Monday, for instance, none of the ten most active stocks sold above \$7 a share. Leading the market was Packard Motor at 3. Highest priced on the most active list was International Telephone & Telegraph at 7. At the other end were Commonwealth & Southern at $\frac{1}{8}$ and United Corp. at $\frac{9}{16}$.

• **Lack of Confidence**—Concentration of business in the penny arcade, if not an actual sign of weakness, is almost always indicative of apathy. Usually it means that speculators are playing with the long shots because they are afraid to risk real money on the big market leaders.

In the over-the-counter market, investors are still working over the list of bank stocks trying to spot the ones that look attractive in the light of 1942 earnings reports. Although the record is spotty, most banks either held their own or bettered their incomes a trifle in 1942.

• **They're Not All Higher**—Chase National, for example, made \$2.03 a share last year, against \$1.96 in 1941. Most of

the other big New York banks showed about the same horizontal trend. National City earned \$1.95 a share, which compares with \$1.94 in 1941. Bank of Manhattan showed \$1.81 against \$1.37.

Not all the changes were on the upside, however. Bankers Trust showed a drop from \$3.11 a share to \$2.99. Central Hanover reported only \$5.76 against \$6.31 in 1941.

Chicago banks showed the same mixed results. Continental Illinois came out with a decline from \$10.12 a share to \$8.39, and Harris Trust reported a somewhat smaller shrinkage. But Northern Trust boosted earnings from \$30.79 a share to \$32.05, and First National made \$22.40 against \$21.74.

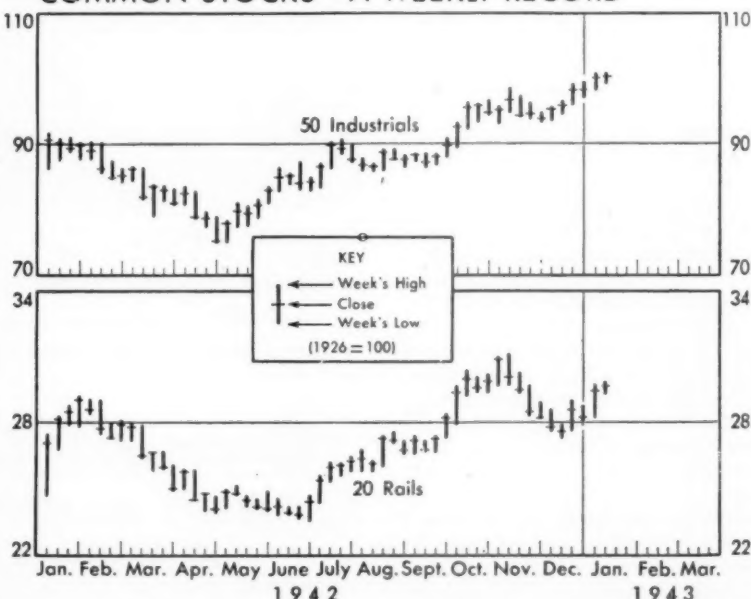
• **Playing It Safe**—Apparently most banks are playing safe by holding their portfolios of government securities to comparatively short maturities. Chase reports that its investments in governments have an average maturity of two years, computed to the call dates, and three years to final redemption. National City states that 73% of its bonds will mature within five years and 94% within ten years.

Security Price Averages

	This Week	Month Ago	Year Ago
Stocks			
Industrial	100.2	100.1	95.7
Railroad	29.7	29.5	27.6
Utility	37.6	36.6	34.8
Bonds			
Industrial	115.5	115.9	106.2
Railroad	89.5	87.7	87.4
Utility	110.4	110.1	108.6
U. S. Govt.	109.6	109.6	110.5

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

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SALUTE TO SAFETY

Deserved is the National Safety Council's award of honor to du Pont via Walter S. Carpenter, Jr., president. An industrial safety pioneer, du Pont has spent great sums on precautions. Result: no accidents in 38 plants in 18 months.

COMMODITIES

Lots of Metal

Supplies in nonferrous list should be large enough to give Hitler the jitters, but they're still short of war needs.

Shortages of nonferrous metals still exist in the United States, and some of them are acute. Yet shortages are relative things, and ours aren't of a character to give aid and comfort to the enemy. For that reason, the War Production Board seems to be relaxing somewhat its ban on publication of statistics that give over-all insight into this country's position.

• **Short but not Scarce**—Here are a few pointed examples of why the figures on our shortages aren't calculated to give Hitler any pleasure:

The United States last year consumed more copper than the entire world produced in the commodity-boom year of 1937.

Our aluminum production, plus imports from Canada, at the year-end was at an annual rate more than double actual aluminum output of the world for 1937—and at the close of 1943 will be almost three times the 1937 figure.

Lead consumption in 1942 was two-

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thirds the 1937 world production figure.

Most spectacular of all, we are now turning out magnesium at ten times the world production in 1937—and by the end of this year will be running at almost double the present rate.

● **Not Good Enough**—The story, then, is one of outstanding progress but not enough even so. Only facts and figures that have been officially released by the war agencies may be published; while these may tell something less than the desired story to the manufacturer cramped for raw materials, they nevertheless speak hopefully for war production on the whole.

Happiest spot in the picture is manganese. Large expansion of production of this vital steel-making material from low-grade domestic ores in 1943 will provide about one-third of total requirements. The stockpile is large enough to keep us running for two years without any home production or imports.

● **Lead's Position Good**—Next easiest important nonferrous metal is lead. Due to early and drastic curtailment of civilian use, domestic production and imports (mostly from Latin America and Canada, some from Australia) have provided a modest surplus for stockpiling, and the restrictions on civilian use have been relaxed slightly.

Name those two, and you've just about called the roll of plentiful nonferrous metals. Due to huge and unprecedented demand, the pinch persists in varying degrees in all the major steel-alloying metals—chrome, molybdenum, tungsten, vanadium, and nickel.

● **Big Things in Moly**—There will be a further increase of perhaps 15% (several million pounds) in domestic production of molybdenum, which is the least tight of the lot. Domestic output, mostly from new sources, has aided the tungsten situation, but a 10% shortage, based on war needs, is anticipated this year.

Intensive domestic development leads to the hope the home supplies of chromite ore this year will yield more than half of requirements. Nickel (very largely from Canada, some from New Caledonia) remains critically short. Far-reaching efforts will double this year's supply of vanadium.

● **The Copper Riddle**—Total copper supply, which reached the unbelievable total of 2,460,000 tons in 1941, rose still further to about 3,000,000 in 1942—yet won't go around. Uncertainty of imports, the serious labor shortage, and inability to get a really large increase in domestic production at premium prices remain the main problems.

Tin, all imported heretofore, has been subjected to a further civilian use curtailment (page 52) designed to cut another 25% off consumption. Meanwhile, this country's new tin smelter is reported to be increasing production to a point where it can turn out a major part of requirements.

THE TRADING POST

To Whip Inflation

The secretary of a Midwest lumber company writes as follows:

Where are the bugs in the following idea? I know they must be there but I cannot put my finger on them.

Why cannot the OPA determine the cost of a fairly meager living in the various sections of the country and issue coupons weekly or monthly to every individual not in an institution. These coupons to be used in buying every commodity necessary to a fairly decent existence. For example if it were determined that food, clothing, etc., necessary for a decent existence in New York City could be purchased today for \$600 per year for an adult, then an adult in N. Y. would get \$50 worth every month to be spent as he saw fit. For example, if he preferred cigarettes to coffee, O.K., but if he was running short of coupons and needed a pair of pants, he might have to go without both coffee and cigarettes for a time. He might, however, be able to borrow or buy coupons from someone else. I cannot see why there should not be a market in the coupons (sale could be paid for by war stamps or bonds) if some persons could find means and ways of living satisfactorily on less than the amount granted to them.

Inflation could be controlled as well as by any other method used today, as the amount of coupons or the value could be fluctuated at any time. Of course it would be necessary that merchants not be able to restock inventory except by presenting coupons turned in by the customer.

The feature that appeals to me in this is the fairness. A wealthy man will have to come down to the common level in his living. He, in most cases, I think is perfectly willing to do this. If he still has servants, he and they can pool their coupons to advantage in some cases. The so-called "submerged one-third," which probably now should be "one-thirtieth," would have coupons in excess of their ability to use or pay for and could dispose of them in the market. The larger income man, mostly unionized war-workers, could then accumulate coupons for the fur coat or tailor-made suit he feels he needs. Minor children and dependents would, of course, be issued fewer coupons than working adults and more or less coupons would be issued in accordance with the cost of living in various sections of the country.

These coupons should cover every essential commodity excepting rent and luxuries such as jewelry, etc. They should cover gas, tires and probably car repairs.

Is not this method or something similar now being used in some of the European countries and is it not as democratic as any?

The plan outlined by this correspondent is essentially that proposed by M. Kalecki for England. (See *The Trend*, BW—May 23'42, p96). The one addition he makes is to provide for sale amongst consumers of ration coupons already

distributed. That, too, has been proposed by some economists as an amendment to Kalecki's plan.

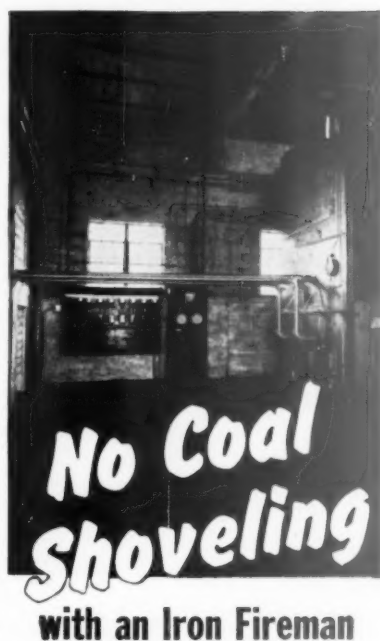
A further amendment that has been suggested is discussed in *The Trend* (BW—Sep. 12'42, p124) on the spending tax. One spending tax proposal, instead of levying at the end of a year on the difference between income received and income saved, suggests issuing ration coupons for fixed uniform amounts, and taxing with progressive severity ration coupons for all additional amounts. For example, all individuals would be issued books to the amount of, say, \$300 for spending on goods alone (exclusive of services) and these books would be free. But you could buy an additional \$100 worth of spending coupons at a tax of, say, \$10, and a second book for \$100 more at a tax of, say, \$20. And so on. In a sense, this is a graduated sales tax. It differs from this correspondent's scheme in providing greater flexibility.

The Treasury and OPA are now considering such a form of "expenditure taxation." It has no more than an outside chance of adoption.

As a matter of fact, some students of inflation see more sense in expenditure taxation than in most anti-inflationary fiscal proposals. The "bugs," if any, lie, for the most part, in the fact that the plan involves a radical shift in our taxation and rationing techniques and might, therefore, raise unforeseen difficulties of administration. But some would find it more palatable than a flat sales tax, or stiff forced savings.

It should be noted that in theory, any proposal to limit spending to supply—as would this correspondent, or Kalecki, or the expenditure taxonomists, or the forced-savings proponents—is, in effect, a substitute for controlling individual prices and rationing individual commodities. The argument is that, because total demand equals total supply, the price level of consumer goods will remain stable. Individual prices, of course, would not; under the new demand-supply condition, some products would become more or less desirable, and this would regulate distribution of scarce goods. We might discuss the "pros and cons" of this at length, but it is plain to see that it involves an entirely new tack.

In reply to this correspondent's concluding query, no nation, to my knowledge, has adopted this general approach, much less the specific device of expenditure rationing. We are more likely to rely on the familiar devices of price control and rationing, do a less comprehensive job on controlling general spending, and trust to patriotism, helped along a bit by policing. W.C.



ALL you see of coal handling in the clean boiler room shown above are the feed tubes through which Iron Fireman Spreader stokers carry coal to the fire on a stream of air. This is an actual picture of the heating plant of Clark Field House, which also heats the Senior High School and Industrial Arts building of the Burlington Independent School District, Iowa.

You see no sign of coal being shoveled because there is no manual labor of this kind involved. Coal is fed directly from the bunkers to the fire. The cleanliness of the operation is well indicated from the clean appearance of the boiler room. The efficiency of the operation is well illustrated by the cost savings.

Saving 35% of Former Fuel Cost

This Iron Fireman operation cut the former fuel cost of \$5400 down to \$3500—a reduction of 35%. This is just another one of many cases from files of Iron Fireman users. Such records of performance explain the ever-growing popularity of Iron Fireman automatic coal firing. Ask us to make a free survey and estimate showing what Iron Fireman can do in your boiler room. Write Iron Fireman Mfg. Co., 3284 W. 106th St., Cleveland, Ohio.



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THE TREND

WHY SOCIAL SECURITY?

As Sir William Beveridge put it in his now-famous report to Parliament, "The plan for social security is first and foremost a method of redistributing income." In considering the newly revived proposals for extension of our own social insurance system (BW—Jan. 9'43, p5), it will be wise to keep that point in mind.

Broadly the Administration's program would extend social security coverage to persons and groups now exempt; federalize the unemployment system (BW—Jan. 10'42, p76) and liberalize its benefits; introduce new "compensables"—hospitalization, disability, maternity, etc.

- **To pay for this**, the plan proposes a 5% payroll tax on employers and another 5% on employees. Today, employers contribute 1% of payrolls for the old age insurance scheme and turn in another 1% to 3% (varying from state to state and averaging over 2%) as a tax for unemployment compensation. Employees give up 1% of their pay for old age insurance, make no contribution to the unemployment benefit fund. Thus the projected boost to "5 and 5" would amount to less than 2% more of payroll for employers, to 4% more of pay for employees. Of the total 10% contribution, 4%, instead of the present 2%, would go for unemployment; another 4% (raised from 2% now) would cover old age; a final 2% would be taxed for the new group of benefits.

While a different plan would mean a different redistribution of income, any plan must face certain fundamental facts.

Thus if we examine unemployment, we see that it is partly a cyclical problem, but that, even at "full employment," we are bound to have a certain amount of joblessness due to seasonal and frictional causes. To cover this, 2% of that 4% of payroll has been considered sufficient; the other 2% is set up against the ravages of depression. But the fact is that, while full employment should make it possible to dispense with this second 2%, not even the full 4% could take care of the unemployment roll of another severe cyclical depression.

- **When we come to old age benefits**, we find that we are involved in a secular problem. To be sure, workers retire sooner in bad times, later in good times. But the outstanding fact of our situation is that the population of the United States is growing older. And in two or three generations the old age pensions payable under our present benefits will require a then current total cost of fully 10% of payrolls.

The new "compensables," of course, will go on year in and year out with little change and regardless of cyclical fluctuations in business and trends extending over long periods of time.

Since, even under "5 and 5" proposal, some benefit payments would be fairly stable and other contributions would be steadily accumulated against old age, the levies

which would be saved in good times to be released in bad would amount to but perhaps 3% or 4%. This could have little effect on economic conditions one way or another.

However, the effect of economic conditions on social security can be a large one. For in times of bad business, collections from payrolls obviously will fall off. If we get another long-drawn depression, government contributions to continue the benefit payments will be required—plus, probably, home relief, WPA's or PWA's, in order to take care of the jobless once unemployment insurance payments run out. And if American peacetime tax policy continues on an ability-to-pay basis, business men, either through their corporations or in their individual income-tax-paying capacities, will have to bear the burden of most of these government contributions.

- **The fact is** that the cost of a social security program is fully bearable through that program only in periods of good business. At the same time, the closer we approach sustained good business and full employment, the less does the need for social security become. Then, automatically, the cost of cyclical unemployment disappears, and individuals tend to save what is required to insure themselves continuing incomes in illness or old age. Thereupon, the social insurance system becomes just that—a means by which individuals can put their job-shift, illness, and old age problems on an actuarial basis (though, under the Administration program the individual worker will also get from his employer something akin to a 5% wage boost to put into the pot).

Actually, social security as an economic panacea begs the real economic question facing America: Can we assure full employment and good business? If we get that, social security becomes more bearable but less necessary; if we don't, social security becomes more necessary but less bearable.

However, all these facts do not dispose of the social security problem at present moment. We haven't guaranteed full peacetime employment yet. Industry's employees do want such guarantees against the future as social security already gives them, and they have sought here, as in Britain, an extension of the present system. And that system does, at least, give them a stake in the preservation of the present economic system and continues that stake into bad times; without it, they might then turn to more radical promises of assurance.

- **Granting that we may be piling up burdens** that will become tremendously heavy in the event of another depression, it could well be that a sound extension of social security now is a security measure in more ways than one.

The Editors of Business Week

Business Week • January 16, 1943

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